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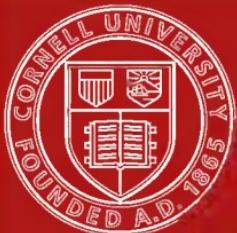
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HARMONY AND THE SCIENCE OF MUSIC;

COMPLETE IN ONE VOLUME;

BY

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DEFINITION III.

PITCH is the acuteness or gravity of sounds.

Sounds are said to be of the same pitch, or, of a higher, or lower pitch; according as their vibrations are the same, greater, or less.

NOTE. The acuteness and gravity of musical sounds depend upon the number of vibrations the sounding body makes in a given time.

The greater the number of vibrations, the acuter the sounds, and conversely.

The sound produced by 16 vibrations in a second of time, is considered to be the gravest sound that is audible; and that produced by 16,384 in a second of time, the acutest.

Every additional vibration which the vibrating body is made to produce causes an increase in the acuteness of the sound, and conversely; but no less alteration than 10 vibrations produces any *distinguishable* alteration of pitch in the acute sounds.

The celerity of the vibrations of a string depends on the joint influence of the length, weight, and degree of tension to which it is subjected. When two strings of the same kind and diameter, but of different lengths, are stretched by equal weights, the number of vibrations in a given time is inversely as their length; i. e. one string double the length of another, weight and tension being the same, makes half the number of vibrations in the same time; and one triple the length, one third of the number; or, one half the length, makes double the number of vibrations; and one third the length, three times the number of vibrations. When two strings are of the same kind and dimensions, but stretched by different weights, the number of their vibrations is directly proportionate to the square of the weight; i. e. one string requires to be distended to four times the load of the other (supposing the length and weight to be the same), in order to make double the number of vibrations in a given time.

When two strings are of the same kind and length, but of different dimensions, and stretched by equal weights, the number of their vibrations is inversely as their diameters; i. e. in the case of two strings whose length and tension are the same, one string requires to be four times lighter than the other, in order to produce its vibrations in half the time.

With regard to wind instruments in general, for all practical purposes it may be taken as a general rule that the celerity of the vibrations depends on the length of the column of air; one column half the length of another, makes double the number of vibrations in a given time; one column double the length of another, makes half the number of vibrations in a given time, provided the diameters are the same, and the force of wind is equal.

The effect of "stopping a pipe" (that is, closing the end) is a retardation of its vibrations by one half: thus a stopped pipe of two feet produces only the same number of vibrations in a second as an open pipe of four feet.

However, it must not be forgotten that, in particular pipes, if the force of the blast be increased, the celerity of the vibrations is increased also.

The pitch of all pipes is influenced by the diameter. The effect of increasing the diameter is to decrease the number of vibrations.

There are, however, some wind instruments—for instance, the “reed pipes of an organ,” also the wind instruments called the clarionet, and bassoon (which contain reeds, or tongues)—in which the celerity of vibrations appears to depend materially on the length and stiffness of the reed, and not so much on the length of the column of air enclosed; for, if dependent on the latter, grave sounds could not be produced from short pipes; viz. from pipes of the length of the ordinary clarionet and bassoon.

DEFINITION IV.

Sounds in unison are sounds which are of the same pitch.

DEFINITION V.

The octave of a musical sound is the sound produced by either double or half the number of vibrations producing the given sound.

Double the number of vibrations produces the octave above, and half the number the octave below.

NOTE. The word “octave” means the “eighth.” It derives its introduction into the vocabulary of musical terms from being the eighth letter of the circle of letters representing sounds. This eighth letter represents the sound produced by either double or half the number of vibrations producing the given sound, considering the given sound as the first letter of the circle of “musical sounds.”

DEFINITION VI.

AN INTERVAL is the difference of pitch between one sound and another; for example, the difference of pitch between a sound and its octave is an interval.

DEFINITION VII.

A SEMITONE is the interval $\frac{1}{2}$ of that which exists between a sound and its octave.

DEFINITION VIII.

A WHOLE TONE is the interval of 2 semitones.

DEFINITION IX.

MUSIC is a succession or combination of certain musical sounds; also a succession of combined musical sounds.

CHAPTER II.

ON THE SOUNDS MADE USE OF IN MUSIC.

THE sounds made use of in music are those whose differences of pitch from a given standard sound are equal to those produced by dividing the interval of an octave into 12 equal intervals; to which add all the grave and acute octaves of the sounds so discovered.

The sound taken as a standard is that produced by 528 vibrations in a second.

The number of octaves which can be used is not absolutely fixed; but as the very grave and very acute are with difficulty appreciated, more than 3 octaves above and 5 octaves below the standard sound are seldom made use of. The pedal pipes of an organ give a sound 5 octaves below the standard, and the high notes of the pianoforte a sound 3 octaves above the standard.

NOTE 1. All existing musical compositions, except some national melodies, have been written upon the basis of the division of the interval of an octave into only 12 smaller intervals; and although several attempts have been made (among others, may be cited General Perronet Thompson's, in his valuable Treatise on the "Enharmonic") to introduce a subdivision of 16 intervals, the former is the only number that can now be adopted, without rendering impracticable the performance of the pianoforte works of the great composers.

Our knowledge of the relationship which musical sounds should bear to each other, in order to be used in succession, is derived from Euclid's rules for the division of a monochord or single string; the divisions of which produce all the sounds admitted between a given sound and its octave, and with their octaves all the sounds admitted into a musical composition.

Euclid's division produces the sounds made use of in the modern minor descending scale (vide Minor Scales, Definition IV, Chap. VI). Later mathematicians have carried these divisions still further, and divide the interval of an octave into 16 divisions, which, described by the method of ratios, are as 1 : 1, 15 : 16, 25 : 27, 9 : 10, 8 : 9, 5 : 6, 4 : 5, 3 : 4, 32 : 45, 2 : 3, 3 : 5, 9 : 16, 5 : 9, 27 : 50, 8 : 15, 1 : 2. Instead of these 16 divisions, 12 only have been generally adopted, whose ratios may be expressed as 15 : 16, 8 : 9, 5 : 6, 4 : 5, 3 : 4, 32 : 45, 2 : 3, 5 : 8, 3 : 5, 4 : 7, 8 : 15, 1 : 2.

The division of the interval of an octave into 12 *equal* intervals, called the equal temperament system, is of modern invention; and the proper division of the string is not rigidly adhered to. All the sounds introduced in the octave are consequently not true to nature, but only approximate to it; and are so tempered as to do the duty of a greater number.

The equal temperament system has this advantage, that any one of the semitones may be taken as "the sound to begin with," and the same system of intervals will exist between that note and its octave as between the standard sound and its octave; for the vibrations of the semitones are successively increased, not by the same equal number of additional vibrations as in the division of the monochord, but by such constantly increasing numbers as preserve an equality in the ratios of the semitones; the measure of pitch in each semitone is therefore the same.

NOTE 2. The number of vibrations for the standard sound was determined at a meeting of the Society of Arts, on June 5th, 1860. The number is arbitrary, and not based on any scientific theorem.

According to Sir John Herschel, the *natural* standard sounds may be considered those produced by 1 vibration in a second, and by those numbers which succeed in geometrical progression, as 2, 4, 8, 16.

The *natural* standard for C would accordingly be 512 vibrations in a second, instead of 528, as determined. Our present standard for C may therefore be considered as 16 vibrations above the *natural* standard.

CHAPTER III.

ON THE NAMES OF THE SOUNDS USED IN MUSIC.

THE 12 sounds produced by dividing the interval of an octave into 12 equal intervals, together with their octaves, are named after the first 7 letters of the alphabet.

Seven of the 12 sounds are called simply, A, B, C, D, E, F, G; the other 5 require to have prefixed to them the word "sharp" (which means a semitone higher), or "flat" (which means a semitone lower), in order to designate them. They are called respectively, C sharp or D flat, D sharp or E flat, F sharp or G flat, G sharp or A flat, A sharp or B flat.

CHAPTER IV.

DEFINITIONS.

C is the standard sound.*

D is its acute interval of 2 semitones.

* The proper notation of this sound can be made, with the Treble cliff, on the 3rd space of the staff. Vide page 29.

E is its acute interval of 4 semitones.

F is its acute interval of 5 semitones.

G is its acute interval of 7 semitones.

A is its acute interval of 9 semitones.

B is its acute interval of 11 semitones.

C sharp or D flat (viz. the interval of a semitone between C and D) is the acute interval of 1 semitone from C.

D sharp or E flat (viz. the interval between D and E) is the acute interval of 3 semitones from C.

F sharp or G flat (viz. the interval between F and G) is the acute interval of 6 semitones from C.

G sharp or A flat (viz. the interval between G and A) is the acute interval of 8 semitones from C.

A sharp or B flat (viz. the interval between A and B) is the acute interval of 10 semitones from C.

Remark 1. The names of the sounds here given are those under which they are generally spoken of; but it is quite possible to designate them otherwise, for it will be observed that the sound not so acute as D, and acuter than C, takes its name from either C or D, with the aid of a sharp or flat, and so every sound can have its name altered, by borrowing that of another, and adding a sufficient number of flats or sharps to lower or raise it to its proper pitch; for example, C can be called D double flat (double flat means 2 semitones below), or E can be called D double sharp (double sharp means 2 semitones above), and so on. More than two sharps or flats are seldom required in naming sounds; but as many can be used as are necessary in order to designate properly the sounds at certain given intervals. For example—in writing the Exercises on page 39, three sharps and three flats are occasionally required to be added to the name of a sound. Three sharps or three flats can be called respectively a treble sharp, a treble flat.

Remark 2. The octaves of these 12 sounds bear the same names as their primes; but they can, if necessary, be distinguished by calling the first octave above, the once-marked octave above; for example, the once-marked above C, written thus, \overline{C} ; or the once-marked above D, written thus, \overline{D} .

The second octave above can be called the twice-marked above, and so on, according to the number of octaves the sound named is above its prime.

The octaves below can be distinguished by calling them the once-marked octave below; for example, the once-marked below C, written thus, C, and so on, according to the number of octaves the sound named is below its prime.

NOTE. The Germans have a method of describing the octaves of the 12 sounds different from that here given. They call the sound here described as simply C, the twice-marked C, and the octave below that as the once-marked C, the octave below that as the small C, the next octave below as the large C; the sound here described as simply D they call the twice-marked D, and the octave below as the once-marked D, the octave below that as the small D, and so on.

Organ builders adopt the following method to describe the grave sounds produced by their organs. They call the sound 3 octaves below the C of the method adopted in this work as the 8 feet C; the sounds between that sound and its octave they call the 8 feet D, E, F, &c.; the sound 4 octaves below they call the 16 feet C, and the sounds between that and its octave the 16 feet D, E, F, &c.; the sound 5 octaves below C they call the 32 feet C, and the sounds between that and its octave the 32 feet D, E, F, &c.

This method is, however, bad; because not true to nature. 8 feet of pipe cannot produce two different sounds (except by aid of reeds—*vide Note on Definition III, Chapter I*); consequently there cannot be an 8 feet B, if there is an 8 feet C. It is well known, however, that 8 feet of pipe does produce C; that 16 feet produces C; and 32 feet produces C.



An enharmonic change is a change made in the name of a sound, without alteration of pitch*.

Remark. All sounds can be enharmonically changed; but as the names of 5 of the 12 sounds are twofold, an enharmonic change is only said to be effected in them, when, having been designated by one name, that name is changed to another; for example, the sound acuter than C, and less acute than D, if called C sharp, can be enharmonically changed to D flat; but without any enharmonic change the same sound can be called D flat.

* This is almost the only definition that can be given of this term when the method adopted is that of 12 semitones to the octave.

CHAPTER V.

ON THE NAMES OF INTERVALS.

Intervals are either simple or compound; they are also either diatonic or chromatic.

DEFINITIONS.

Simple intervals are all those not greater than the octave.

Compound intervals are all those greater than the octave

Diatonic intervals.* (Vide Note on Definition V, Cap. VI.)

Chromatic intervals. (Ibid.)

ON SIMPLE INTERVALS.

There are seven kinds of simple intervals; known as the intervals of a second, third, fourth, fifth, sixth, seventh, and eighth, which are subdivided thus:

There are of seconds, 3 kinds; viz. a minor, major, and augmented.

Of thirds, 4; diminished, minor, major, and augmented.

Of fourths, 3; diminished, perfect, and augmented.

Of fifths, 3; diminished, perfect, and augmented.

Of sixths, 4; diminished, minor, major, and augmented.

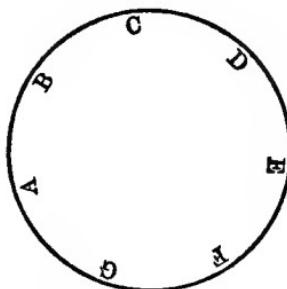
Of sevenths, 3; diminished, minor, and major.

Of eighths, 2; diminished and perfect.

N.B. An interval, in order to be called the second, third, fourth, fifth, sixth, seventh, or eighth of any sound, must bear the name of the respective second, third, fourth, fifth, sixth, seventh, or eighth letter of the accompanying circle of letters, considering the sound from which the interval is reckoned as the first letter.

* The definition of diatonic and chromatic intervals is deferred to Cap. VI, as, in order to understand it, it is requisite to be acquainted with scales and keys. N.B. For Exercises on the following Chapters *vide* page 39.

A CIRCLE OF THE 7 LETTERS USED IN NAMING MUSICAL SOUNDS.



Thus from G to A flat is a second, so also is G to A, or G to A sharp. These seconds are of different kinds, consisting of more or less intervals, but still seconds, because the sound is named after the second letter of the circle.

DEFINITIONS.

A minor second is the interval of 1 semitone.

A major second is the interval of 2 semitones.

An augmented second is the interval of 3 semitones.

A diminished third is the interval of 2 semitones.

A minor third is the interval of 3 semitones.

A major third is the interval of 4 semitones.

An augmented third is the interval of 5 semitones.

A diminished fourth is the interval of 4 semitones.

A perfect fourth is the interval of 5 semitones.

An augmented fourth is the interval of 6 semitones.

A diminished fifth is the interval of 6 semitones.

A perfect fifth is the interval of 7 semitones.

An augmented fifth is the interval of 8 semitones.

A diminished sixth is the interval of 7 semitones.

A minor sixth is the interval of 8 semitones.

A major sixth is the interval of 9 semitones.

An augmented sixth is the interval of 10 semitones.

A diminished seventh is the interval of 9 semitones.

A minor seventh is the interval of 10 semitones.

A major seventh is the interval of 11 semitones.

A diminished eighth is the interval of 11 semitones.

A perfect eighth or octave is the interval of 12 semitones.

Rule. To find the name of a given interval, refer to the circle on page 9. If the interval required is a second or third, etc. from a given letter, find out what is the 2nd or 3rd letter of the circle, considering the given letter as the 1st. Its general name being thus discovered, find out the number of semitones the required interval contains, and reckon them on the circle on page 17; for example, required the name of an augmented second from C. The second letter of the circle is D. The number of semitones contained in an augmented second is 3, and reckoning on the circle on page 17, 3 semitones for C, we arrive at D sharp, which is an augmented second.

NOTE 1. Some writers describe sounds which are "unison" as of various kinds; for example, they speak of the diminished and augmented unison, and they call C to C flat, or C to C sharp, diminished and augmented unisons. Sounds, however, cannot be of the same pitch (*vide unison*), and of a different pitch; and as C and C sharp are not of the same, they are not "unison;" consequently the terms diminished and augmented cannot properly be applied to unison.

The interval nearest to, above or below, a sound which is not a second, is best described as a semitone; for example, the interval of a semitone between C and C sharp, or between C and C flat.

NOTE 2. There is no definition given of a diminished second, because, according to the system of dividing the interval of an octave into only 12 semitones, no such interval exists.

When the terms diminished and minor are both used in describing the various kinds of intervals, the diminished implies a difference of pitch less than the minor.

Now the difference of pitch between a sound and its minor second is 1 semitone, viz. the smallest interval made use of, consequently incapable of being diminished.

The interval between C and D flat is a minor second; but if D flat is lowered, it becomes D double flat, and, by the enharmonic change, C. Now there is no difference of pitch between C and C, consequently none between C and D double flat, which some writers describe as a diminished second.

NOTE 3. No definition is given of an augmented seventh, for it is not advisable to describe the difference of pitch greater than a major 7th, by the aid of the seventh letter of the circle; for it is an axiom, that all intervals can be inverted, and that the interval produced by the inversion of a simple interval less than an eighth, is the complement of the octave of the sound inverted; for example, the interval of a perfect fifth by inversion is a perfect fourth, for the perfect fifth is $\frac{7}{12}$ of an octave (viz. 7 semitones), its complement is therefore $\frac{5}{12}$ (5 semitones), which is the difference of pitch for a perfect fourth. It is also generally agreed, that, with regard to all the intervals described, less than the eighth, the rule holds good, that the name of the interval by inversion can be at once known by finding its complement of the number 9; thus, a second by inversion becomes a seventh, for $7 + 2 = 9$; and a third becomes a sixth, for $3 + 6 = 9$. Perfect intervals, by inversion, remain perfect; minor intervals become major; major intervals become minor; augmented intervals become diminished, and diminished intervals become augmented.

Now, if the term augmented seventh is made use of, let us see how it conforms to the axiom. First say it can be inverted. What then is its complement? It requires none; its difference of pitch is $\frac{1}{2}$, which is the interval of an octave (vide definition of an octave). And now look for the name of its inversion in the complement of the number 9; it appears there as a second, according to the axiom, for $7 + 2 = 9$; but augmented intervals become diminished, and therefore the inversion of an augmented seventh would suggest a diminished second, an interval which, according to our system of 12 sounds in the octave, does not exist. It follows, therefore, that the interval of 12 semitones should be designated the perfect eighth or octave.

ON THE INVERSION OF SIMPLE INTERVALS LESS THAN A PERFECT EIGHTH.

All simple intervals can be inverted; that is, the graver of two sounds containing a simple interval can be raised to its octave, so that the sound which was the acuter becomes the graver; or the acuter of two sounds containing a simple interval can be lowered to its octave, so that the sound which was the graver becomes the acuter.

Perfect intervals, when inverted, remain perfect.

Minor intervals, when inverted, become major.

Major intervals, when inverted, become minor.

Augmented intervals, when inverted, become diminished.

Diminished intervals less than an eighth, when inverted, become augmented.

Seconds, by inversion, become sevenths.

Thirds, by inversion, become sixths.

Fourths, by inversion, become fifths.
 Fifths, by inversion, become fourths.
 Sixths, by inversion, become thirds.
 Sevenths, by inversion, become seconds.
 Diminished eightths, by inversion, become chromatic semitones.

For example, the interval between C and G is a perfect fifth. If C, which is the graver sound of the two, is raised to its octave, then the interval between G and once-marked C is the interval of a fourth, and a perfect fourth, because perfect intervals, by inversion, remain perfect.

Rule. To find the name of an inverted simple interval not an eighth, find its complement of the number 9; for example, the name of the interval produced by the inversion of a seventh is a second, for $7 + 2 = 9$. If the seventh is a minor seventh, its inversion is a major second; for minor intervals when inverted become major.

ON COMPOUND INTERVALS.

A compound interval is a simple interval compounded with its octave. Compound intervals are augmented eighths, ninths, tenths, elevenths, twelfths, etc.; an augmented eighth is the interval of a semitone and its octave, a ninth is the interval of a second and its octave.

A tenth is the interval of a third and its octave.
 An eleventh is the interval of a fourth and its octave.
 A twelfth is the interval of a fifth and its octave.
 A thirteenth is the interval of a sixth and its octave.
 A fourteenth is the interval of a seventh and its octave.
 A fifteenth is the interval of an eighth and its octave.
 The fifteenth, when compounded of two perfect eighths, is the double octave of a sound.

Greater intervals are named by describing the number of perfect eighths or octaves, as well as additional lesser intervals intervening; as, for example, the interval of two octaves and a minor second.

Compound intervals can also be described by naming the

intervals of which they are compounded; for example, the interval of an octave and a second, etc. above or below; the interval of two octaves and a third, above or below, etc.

There are as many kinds of ninths, tenths, &c. as there are kinds of simple intervals to compound with an octave; for example, there are minor, major, and augmented ninths, because there are minor, major, and augmented seconds, diminished, minor, major, and augmented tenths, &c.

ON THE INVERSION OF THE INTERVAL OF AN OCTAVE, AND COMPOUND INTERVALS.

The interval of an octave, and all compound intervals, can be inverted; that is, the graver of two sounds containing these intervals can be raised two octaves, so that the sound which was the acuter becomes the graver; or the acuter of two sounds containing these intervals can be lowered two octaves, so that the sound which was the graver becomes the acuter.

Perfect eighthths, by inversion, remain perfect eighthths.

Augmented eighthths, by inversion, become diminished eighthths.

Ninths, by inversion, become sevenths.

Tenths, by inversion, become sixths.

Elevenths, by inversion, become fifths.

Rule. To find the name of an inverted compound interval not an eighthth, find its complement of the number 16.

CHAPTER VI.

ON SCALES.

DEFINITION I.

A SCALE is a series of sounds, rising or falling in pitch from any given sound to its octave by intervals of semitones and tones, or only semitones.

There are three kinds of Scales, viz.

Major Scales.

Minor Scales.

Chromatic Scales.

DEFINITION II.

A MAJOR SCALE (ascending) is a series of seven sounds, rising in pitch from a given sound to its octave by intervals of a major second, a major third, a perfect fourth, a perfect fifth, a major sixth, and a major seventh.

DEFINITION III.

THE MAJOR SCALE (descending) implies the sounds of the major ascending scale, commencing on the acutest sound, and progressing to the gravest.

Remark 1. Scales take their names from their first sound; thus, a major scale formed on C is called the major scale of C.

Remark 2. There are as many major scales in music as there are musical sounds, for upon every musical sound a major scale can be formed; but, as the octaves of all the 12 sounds designated bear the same names as their primes, there are only 12 distinct major scales, viz. the scales of C, D, E, F, G, A, B, C sharp or D flat, D sharp or E flat, F sharp or G flat, G sharp or A flat, A sharp or B flat.

The semitone between C and D being sometimes called C sharp, and sometimes D flat, it follows that the scale on that sound is sometimes called the scale of C sharp, and sometimes D flat. So with the other scales; when the sound is changed in name, by the use of flats or sharps, or double flats and double sharps, the name of the scale follows the name of the sound.

DEFINITION IV.

A MINOR SCALE (ascending) is a series of seven sounds, rising in pitch from a given sound to its octave by intervals of a major second, a minor third, a perfect fourth, a perfect fifth, a major sixth, and a major seventh.*

The minor scale is *occasionally* formed with a minor sixth and major seventh ascending, and the same sounds descending; but the above mode is the usually adopted minor scale.

The descending minor scale consists of these sounds, commencing at the highest, and progressing to the lowest, with the exception of the sixth and seventh sounds of the ascending scale, which in descending are lowered each a semitone.

Remark 1. Minor scales take their names from their first sound.

Remark 2. There are as many minor scales as major scales.

Remark 3. Major and minor scales are called diatonic scales, and the intervals of which they are composed are called diatonic intervals.

DEFINITION V.

A CHROMATIC SCALE is a series of sounds, rising or falling in pitch from any sound to its octave by intervals of semitones, in regular succession.

Remark. The differences of pitch between a sound and its octave, which form a chromatic scale, are only here described as intervals of semitones, and no idea is given of the names of these sounds. There is, indeed, no established rule regarding them. They are certainly named after the 7 letters of the alphabet; but after which of these letters is at the caprice and convenience of the writer.

In the chromatic scale of C, for instance, the second sound can be called C sharp, or D flat, the next sound D, or C double sharp, or E double flat. But the plan which involves the use of the fewest sharps or flats may be considered the best.

ON THE TERMS DIATONIC AND CHROMATIC.

NOTE. The term Diatonic is derived from the Greek word "Dia," through, and "Tonos," tone. Applied to scales, it means that the seven letters of the circle of letters (indicating sounds or tones) are passed through in describing the scale.

The term Chromatic is derived from the Greek word "Croma" (colour). Applied to scales, it means that all the colours, that is, gradations of sound between a sound and its octave, are passed through in describing the scale.

The terms diatonic and chromatic are also used in describing intervals

(vide "Names of Intervals"), but they are not so happily applied; custom, however, sanctions the use of them.

Diatonic, applied to intervals, shows that the interval mentioned is an interval which enters into the formation of the major or minor scales of a sound.

The term chromatic, applied to intervals, is understood to mean different from, or varying from diatonic—a variation of the diatonic colour; i. e. a variation of the "diatonic interval of sound;" for example, the chromatic interval of an augmented second between C and D sharp.

THE RELATIONSHIP OF DIATONIC SCALES.

Scales are said to be more or less related, accordingly as they are formed of sounds more or less common to each other.

Every major scale has its relative minor (or minor scale of the sound a minor third below), and every minor scale has its relative major (or major scale of the sound a minor third above).

The near relationship which exists between a major scale and its relative minor, will be seen by the following.

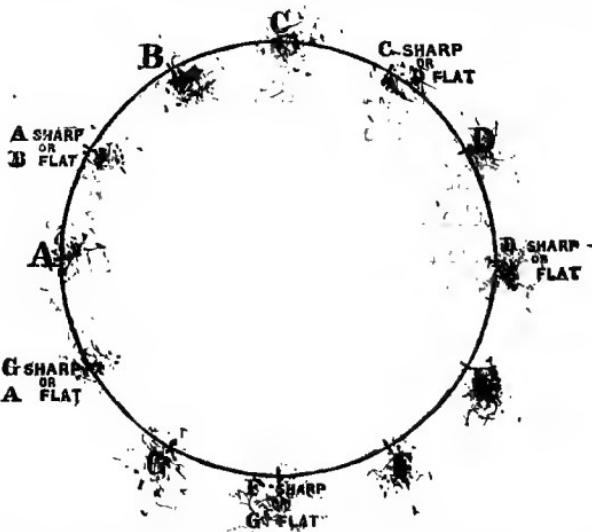
In the scale of C, the sounds are C, D, E, F, G, A, B. In its relative minor, viz. the scale of A minor, the sounds made use of in the descending scale are A, G, F, E, D, C, B, names common to C; therefore the same sounds, or the octaves of the sounds, of C major.

THE MAJOR AND MINOR SCALE of the same sound are also nearly related; for in the ascending scale the difference is only in the third, but in the descending it is in the sixth and seventh, in addition.

Remark. Major scales are also more or less related to each other; for example, the major scales of G and F are nearly and equally related to C, for the former contains six letters common to C, viz. G, A, B, C, D, E, and the latter six letters, viz. F, G, A, C, D, E.

Rule. To find the relationship of major scales to each other, also the relationship of minor scales to each other, reckon the sounds in the following circle by perfect fifths, from any sound, and by perfect fourths, from any sound; the first fifth, and first fourth, are equally related; the next degree is the second fifth, and second fourth, and so progressively.

A CIRCLE CONTAINING THE NAMES OF THE 12 SOUNDS INTO WHICH THE OCTAVE OF THE STANDARD SOUND C IS DIVIDED.*



Thus, C to G is a perfect fifth, therefore G major is related to C major in the first degree.

C to F is a perfect fourth, therefore F major is related to C major in the first degree.

G to D is another perfect fifth, therefore D major is related to C major in the second degree.

F to B flat is a perfect fourth, therefore B flat major is related to C major in the second degree.

D to A is another perfect fifth, therefore A major is related to C major in the third degree.

B flat to E flat is another perfect fourth, therefore E major is related to C major in the third degree.

A to E is another perfect fifth, therefore E major is related to C major in the fourth degree.

E flat to A flat is a perfect fourth, therefore A flat major is related to C major in the fourth degree.

* In making use of this circle, attend to Remark 1, page 6.

E to B is a perfect fifth, therefore B major is related to C major in the fifth degree.

A flat to D flat is a perfect fourth, therefore D flat major is related to C major in the fifth degree.

B to F sharp is a perfect fifth, therefore F sharp major is related to C major in the sixth degree.

THE RELATIONSHIP which exists between the scales of one sound, and all the scales of sounds used in music, can be found on reference to the described circle.

Diatonic major scales named differently are some of these scales enharmonically changed; but sounds enharmonically changed preserve the same relationship; for example, the scale of C sharp major is the scale of D flat major enharmonically changed, but the sounds are the same; consequently the relationship which one has to other scales, the other has. The scale of C flat major is the scale of B enharmonically changed, but the sounds are the same.

THE NUMBER OF SHARPS OR FLATS required in naming the major diatonic scales is as the number of perfect fifths, or perfect fourths; the first sound of the scale is from C in the circle.

Scales whose first sound is a perfect fifth from C, require the use of sharps. Scales whose first sound is a perfect fourth from C, require the use of flats; thus G, being one perfect fifth from C, requires one sharp, in naming the scale; and F, being one perfect fourth, requires one flat for the same purpose. The names of major scales can therefore be known by the number of sharps or flats made use of.

TABLE OF MAJOR SCALES, showing the number of sharps or flats required to express their sounds.

C, neither sharp nor flat.

SCALES REQUIRING SHARPS.

G, 1 sharp, viz. F sharp.

D, 2 sharps, — F sharp and C sharp.

A, 3 sharps, — F sharp, C sharp, and G sharp.

E, 4 sharps, — F sharp, C sharp, G sharp, and D sharp.

B, 5 sharps, — F sharp, C sharp, G sharp, D sharp, and A sharp.

F sharp, 6 sharps, — F sharp, C sharp, G sharp, D sharp, A sharp, and E sharp.

C sharp, 7 sharps, — F sharp, C sharp, G sharp, D sharp, A sharp, E sharp, and B sharp.

SCALES REQUIRING FLATS.

F, 1 flat, viz. B flat.

B flat, 2 flats, — B flat, and E flat.

E flat, 3 flats, — B flat, E flat, and A flat.

A flat, 4 flats, — B flat, E flat, A flat, and D flat.

D flat, 5 flats, — B flat, E flat, A flat, D flat, and G flat.

G flat, 6 flats, — B flat, E flat, A flat, D flat, G flat, and C flat.

C flat, 7 flats, — B flat, E flat, A flat, D flat, G flat, C flat, and F flat.

The number of sharps required in place of flats (or vice versa) when an enharmonic change is made, can be known by finding the difference between the number required of the one before the change is made and the numeral 12; for example, the number of flats required in naming the enharmonic change of the scale of B to C flat is 7; for B required 5 sharps, and the difference between that number and the numeral 12 is 7.

CHAPTER VII.

ON KEYS.

DEFINITION I.

A KEY signifies those sounds which are related to a given sound by intervals composing either the major or minor scales of that sound, and their octaves.

Remark. Keys are of two kinds, viz. major and minor; major, when they signify the sounds of the major scale and

its octaves; minor, when they signify the sounds of the minor scale and its octaves.

There are as many keys as there are major and minor scales; viz. 12 major and 12 minor scales.

Keys, like scales, take their names from their first sound.

TABLE OF 12 MAJOR KEYS.

C, D, E, F, G, A, B, also C sharp or D flat, D sharp or E flat, F sharp or G flat, G sharp or A flat, A sharp or B flat.

Some of these keys are at times called by other names, because the name of every sound can be changed by the use of sharps and flats to the name of another letter of the alphabet; but though changed in name, the sounds are identical; for instance, the sound B can be called C flat, therefore the key of B can be called the key of C flat.

TABLE OF 12 MINOR KEYS.

C, D, E, F, G, A, B, also C sharp or D flat, D sharp or E flat, F sharp or G flat, G sharp or A flat, A sharp or B flat.

These minor keys, like the major keys, can be also called by other names, and for the same reason.

CHAPTER VIII.

THE RELATIONSHIP OF KEYS.

KEYS, like scales, are said to be more or less related to each other, according as they consist of sounds more or less common to each other.

Remark 1. Every major key has its relative minor, or minor key of the sound a minor third below, and every minor key has its relative major, or major key of the sound a minor third above.

Remark 2. Major keys and minor keys are also more or less respectively related to each other.

Remark 3. The rule to find the relationship of keys is the same as that of scales, by substituting the word key for scale.

CHAPTER IX.

ON TIME IN MUSIC.

DEFINITION.

TIME in music, in the first place, is the *comparative period of time* given to some sounds, in reference to that given to others; and the comparative period elapsing between the production of one sound, and another, whilst silence is maintained, in reference to the period elapsing between the production of other sounds, whilst silence is maintained.

In the second place, time in music is the *actual period of time* given to musical sounds; and the actual period of time elapsing between the production of one sound and another whilst silence is maintained.

ON THE COMPARATIVE PERIODS OF TIME.

The comparative periods of time given to some sounds in reference to that given to others, is computed in breves, semibreves, minims, crotchets, quavers, semiquavers, demisemiquavers, semidemisemiquavers, and by dotted and double dotted breves, semibreves, &c.

TABLE OF COMPARATIVE PERIODS OF TIME.

A breve	is equal to	2 semibreves, or 4 minims, or 8 crotchets, or 16 quavers, or 32 semiquavers. or 64 demisemiquavers, or 128 semidemisemiquavers.
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A semibreve	is equal to	2 minims, or 4 crotchets, or 8 quavers, or 16 semiquavers, or 32 demisemiquavers, or 64 semidemisemiquavers.
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A minim	is equal to	2 crotchets, or 4 quavers, or 8 semiquavers, or 16 demisemiquavers, or 32 semidemisemiquavers.
A crotchet	is equal to	2 quavers, or 4 semiquavers, or 8 demisemiquavers, or 16 semidemisemiquavers.
A quaver	is equal to	2 semiquavers, or 4 demisemiquavers, or 8 semidemisemiquavers.
A semiquaver	is equal to	2 demisemiquavers, or 4 semidemisemiquavers.
A demisemiquaver	is equal to	2 semidemisemiquavers.

By these tables it will be perceived that the comparative period of time placed at the beginning of each table is the double, 4-fold, 8-fold, etc. of the other periods of time; but the $1\frac{1}{2}$ -fold, 3-fold, 6-fold, 12-fold, etc. are made use of in musical time, as well as the $1\frac{3}{4}$ -fold, $3\frac{1}{2}$ -fold, 7-fold, 14-fold, etc. The $1\frac{1}{2}$ -fold, 3-fold, 6-fold, 12-fold, etc. comparative periods of time, are computed by dotted breves, dotted minims, dotted crotchets, etc.

TABLE.

A dotted breve	is equal to	$1\frac{1}{2}$ breve. or 3 semibreves, or 6 minims, or 12 crotchets, or 24 quavers, or 48 semiquavers, or 96 demisemiquavers, or 192 semidemisemiquavers.
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A dotted semibreve is equal to 3 minims,
 or 6 crotchets,
 or 12 quavers,
 or 24 semiquavers,
 or 48 demisemiquavers,
 or 96 semidemisemiquavers.

A dotted minim is equal to 3 crotchets,
 or 6 quavers,
 or 12 semiquavers,
 or 24 demisemiquavers,
 or 48 semidemisemiquavers.

A dotted crotchet is equal to 3 quavers,
 or 6 semiquavers,
 or 12 demisemiquavers,
 or 24 semidemisemiquavers.

A dotted quaver is equal to 3 semiquavers,
 or 6 demisemiquavers,
 or 12 semidemisemiquavers.

A dotted semiquaver is equal to 3 demisemiquavers,
 or 6 semidemisemiquavers.

A dotted demisemiquaver is equal to 3 semidemisemiquavers.

The $1\frac{3}{4}$ -fold, $3\frac{1}{2}$ -fold, 7-fold, 14-fold, etc. comparative periods of time, are computed by double dotted semibreves, double dotted minims, etc.

A double dotted breve is equal to $1\frac{3}{4}$ breves,
 or $3\frac{1}{2}$ semibreves,
 or 7 minims,
 or 14 crotchets,
 or 28 quavers,
 or 56 semiquavers,
 or 112 demisemiquavers,
 or 224 semidemisemiquavers.

It will be seen by these tables that the dot increases the value of the breve, etc. one-half, and the double dot, three-fourths.

A double dotted semibreve.

is equal to $3\frac{1}{2}$ minimis,
 or 7 crotchets,
 or 14 quavers,
 or 28 semiquavers,
 or 56 demisemiquavers,
 or 112 semidemisemiquavers.

A double dotted minim

is equal to $3\frac{1}{2}$ crotchets,
 or 7 quavers,
 or 14 semiquavers,
 or 28 demisemiquavers,
 or 56 semidemisemiquavers.

Remark 1. Although the 5-fold is not given in the foregoing tables, because there is no comparative period of time which expresses it in a similar way to the other fold, still it can be, and is sometimes, used in a quick succession of sounds. It is described by "quinoles" of crotchets, quavers, etc.

A quinole of crotchets, or quavers, etc. means 5 crotchets, or quavers, etc.

A quinole of crotchets, quavers, etc. stands in place of 4 crotchets, quavers, etc. and the table stands thus :

A minim is equal to 2 crotchets,
 or 4 quavers, or a quinole of quavers.

A crotchet is equal to 2 quavers,
 or 4 semiquavers, or a quinole of
 semiquavers.

A quaver is equal to 2 semiquavers,
 or 4 demisemiquavers, or a quinole
 of demisemiquavers.

A semiquaver is equal to 2 demisemiquavers,
or 4 semidemisemiquavers, or a quinole of semidemisemiquavers.

Remark 2. There is also a way of expressing the 3-fold, similar to the foregoing, which is in use. It is described by "trioles" of crotchets, quavers, etc.

A triole of crotchets, or quavers, etc. means 3 crotchets, quavers, etc.

A triole of crotchets, quavers, etc. stands in place of 2 crotchets, quavers, etc.

Two trioles make a "sextole."

A sextole means 6 crotchets, or quavers, etc.

A sextole of crotchets, or quavers, etc. stands in the place of 2 trioles.

ON RESTS.

The comparative periods of time elapsing between the production of sound and another, whilst silence is maintained, are computed by breve rests, semibreve rests, minim rests, crotchet rests, quaver rests, semiquaver rests, etc.; also by dotted breve rests, etc. as well as by double dotted breve rests, etc. Such rests are equal in value to their respective breves, dotted breves, and double dotted breves.

CHAPTER X.

ON MEASURES OF TIME.

MEASURES of these comparative periods of time are formed. Each measure consists of one or more breves, semibreves, minims, crotchets, quavers, semiquavers, demisemiquavers, or their value in other terms. A measure is the value of 1 or 3 breves, semibreves, minims, etc. or breve, semibreve, rests, etc. also of the value of those numbers of these terms which succeed 1 or 3 in geometrical progression.

Measures of 9 are also used, and the numbers 18, 36, etc. but not of 5, or the numbers which are multiples of it.

Measures are called even when they signify the value of 1 breve, semibreve, minim, etc. and of those numbers which follow 1 in geometrical progression. Measures are called uneven when they signify the value of 3 breves, semibreves, minims, etc. or of those numbers which follow 3 in geometrical progression.

TABLE OF MEASURES.

EVEN.

The measure of

- 1 breve, 1 semibreve, 1 minim, or 1 crotchet.
- 2 semibreves, 2 minims, or 2 crotchets.
- 4 semibreves, 4 minims, or 4 crotchets.
- 8 semibreves, 8 minims, or 8 crotchets.
- 16 semibreves, 16 minims, or 16 crotchets.
- 32 semibreves, 32 minims, or 32 crotchets.

UNEVEN MEASURES.

The measure of

- 3 breves, 3 semibreves, 3 minims, or 3 crotchets.
 - 6 breves, 6 semibreves, 6 minims, or 6 crotchets.
 - 12 breves, 12 semibreves, 12 minims, or 12 crotchets.
-

CHAPTER XI.

ON THE ACTUAL DURATION OF TIME.

THE actual duration of time due to each comparative period, or to measures formed of them, can be known on finding the value in actual time of any one; thus, if the crotchet is the duration of time occupied by the movement of a pendulum 1 foot in length, from its place of rest to its place of rest, the duration of a minim is equal to the time of two such movements, and the quaver to half the duration of one such movement.

The value of the crotchet, etc. is not always thus given,

and merely the terms fast and slow, and their varieties, are given, to indicate the actual time of the semibreve, minim, crotchet, etc. or the measures of these. In this case the actual time can only be presumed, or the knowledge of it acquired by tradition and experience. The following terms are used to express the comparatives of fast and slow.

Grave, Adagio, Largo, Larghetto, Andante, Andantino, Moderato, Maestoso, Allegretto, Allegro, Vivace, Presto, Prestissimo.

The first term expresses the slowest time; the others increasing quicker times.

These terms are also qualified by others; for example, by *molto—molto Adagio*, slower than *Adagio*; by *moderato—Allegro moderato*, slower than *Allegro*; by *con brio—Allegro con brio*, quicker than *Allegro*, etc.

Remark. The accurate duration of time intended to be given to the breve, semibreve, etc. can be easily known, if a machine called a metronome is used, and if the value of the breve, semibreve, etc. is given as the duration of time occupied between the strokes of the pendulum, set at indicated marks.

Maelzel has adopted in his metronomes such marks on the slide of his pendulum as indicate the number of times the machine strikes in a minute: for example, a pendulum set at the figures 60, strikes 60 times in a minute; at 50, 50 times in a minute; and so on.

Note. When no metronome is used, a pendulum made of string with a weight attached answers accurately enough to denote the value of the breve, etc.; for a breve, etc. can be said to be of the value of the vibration of a pendulum of a specific length: for example, the value of the breve is the time occupied in the vibration of a pendulum of 12, 13, 14, or any other number of inches in length.

In using a pendulum of this kind it is advisable to understand the following rules respecting it.

Pendulums of equal lengths vibrate in equal times, even if their weights are unlike.

In pendulums of unequal lengths, the times in which they vibrate are as the square roots of their lengths, and thus the lengths of the pendulums are as the squares of the times in which they vibrate. Therefore, a pendulum which is to vibrate twice as slow as another, must be four times as long; and, vice versa, only a quarter as long, in order to strike twice as fast.

CHAPTER XII.

ON THE NOTATION; OR REPRESENTATION OF MUSICAL SOUNDS,
KEYS, ETC. BY SYMBOLS.

THE musical sounds used in music are represented by symbols or notes; thus, \textcircled{O} , or \bullet , placed on a staff, or on ledger lines. These symbols are occasionally prefixed with the signs \sharp or \flat ; sometimes by $\sharp\sharp$, x , or $\flat\flat$, and always prefaced with cliffs.

DEFINITIONS OF STAFF, LEDGER LINES, \sharp , \flat , $\sharp\sharp$, $\flat\flat$,
AND CLIFFS.

THE STAFF is a collection of 5 lines, thus , upon, between, over, and under which, are placed the notes.

The lines are reckoned upwards; thus, 1st line, 2nd line, etc.

The spaces between the lines are likewise reckoned upwards; thus, 1st space, 2nd space, etc.

LEDGER LINES are small lines placed above and below the staff, to receive additional notes.

\sharp . This sign, representing a sharp, signifies that the note before which it is placed represents a sound a semitone higher than it would otherwise.

\flat . This sign, representing a flat, signifies that the note before which it is placed represents a sound a semitone lower than it would otherwise.

$\sharp\sharp$ or x . These signs, representing a double sharp, signify that the note before which either is placed represents a sound two semitones higher than it would otherwise.

$\flat\flat$. This sign, representing a double flat, signifies that the note before which it is placed represents a sound two semitones lower than it would otherwise.

\natural . This sign, called a natural, placed before a note, signifies that the sign \sharp or \flat is to be annulled.

$\overline{\sharp\sharp}$. This sign annuls the power of the x and $\flat\flat$.

CLIFFS are signs placed upon the staff, indicating what particular sounds the notes represent placed on the staff or ledger lines attached.

There are 5 kinds of cliffs in use, viz.

- A Treble cliff,
- A Soprano cliff,
- An Alto cliff,
- A Tenor cliff,
- A Bass cliff.

The TREBLE CLIFF is this sign  placed on the 2nd line of the staff. It signifies that all the notes written on that line are symbols of the sound G.

That all notes on the 2nd space are symbols of the sound A.

3rd line	<u>B.</u>
3rd space	<u>C.</u>
4th line	<u>D.</u>
4th space	<u>E.</u>
5th line	<u>F.</u>
1st space above the staff	<u>G.</u>
1st ledger line above	<u>A.</u>
2nd space above	<u>B.</u>
2nd ledger line above	<u>C.</u>
3rd space above	<u>D.</u>
3rd ledger line above	<u>E.</u>
4th space above	<u>F.</u>
4th ledger line above	<u>G.</u>

It also signifies
that all notes on the 1st space are symbols of the sound F.

1st line	<u>E.</u>
1st space below	<u>D.</u>
1st ledger line below	<u>C.</u>
2nd space below	<u>B.</u>

2nd ledger line below	A.
3rd space below	G.

It also signifies that all notes on the lines or spaces, with the signs \sharp or \flat , etc. prefixed, are respectively the symbols of the sounds which borrow their names from their immediately preceding or following sounds.

Remark 1. Sounds below G are rarely represented by aid of the treble cliff, and sounds above G are represented by aid of the word "octava" (shortened into 8^{va.}), placed over the notes which represent the sound an octave below. The word 8^{va.} signifies that the sound desired is the octave above what is represented.

Remark 2. By the use of the word 8^{va.} all sounds can be represented by the symbols of the sounds an octave below, with 8^{va.} placed above them.

The SOPRANO CLIFF is this sign  placed on the 1st line of the staff. It signifies that all the notes written on that line are symbols of the sound C.

That all notes on the 1st space are symbols of the sound D.

2nd line	E.
2nd space	F.
3rd line	G.
3rd space	A.
4th line	B.
4th space	C.
5th line	D.
1st space above	E.
1st ledger line above	F.
2nd space above	G.
2nd ledger line above	A.

It also signifies
that all notes on the 1st space below are symbols of

1st ledger line below

B.

2nd space below

A.

G.

\equiv

It also signifies that all notes on the lines or spaces with the signs \sharp or \flat prefixed, are respectively the symbols of the sounds which borrow their names from their immediately preceding or following sounds.

The ALTO CLIFF is this sign  placed on the 3rd line of the staff. It signifies that all the notes written on that line are symbols of the sound C.

That all notes on the 3rd space are symbols of the sound D.

4th line

E.

4th space

F.

5th line

G.

1st space above

A.

1st ledger line above

B.

2nd space above

C.

2nd ledger line above

D.

It also signifies
that all notes on the 2nd space are symbols of the sound B.

2nd line

A.

1st space

G.

1st line

F.

1st space below

E.

1st ledger line below

D.

\equiv

It also signifies that all notes on the lines or spaces with the signs \sharp or \flat prefixed, are respectively the symbols of the sounds which borrow their names from their immediately preceding or following sounds.

The TENOR CLIFF is this sign  placed on the 4th line of the staff. It signifies that all notes written on that line are symbols of the sound C.

That all notes on the 4th space

D.

5th line

E.

1st space above

F.

1st ledger line above

G.

2nd space above

A.

2nd ledger line above

B.

It also signifies
that all notes on the 3rd space are symbols of the sound B.

=

3rd line

A.

2nd space

=

2nd line

F.

1st space

=

1st line

D.

It also signifies that all notes on the lines or spaces with the signs \sharp or \flat prefixed, are respectively the symbols of the sounds which borrow their names from their immediately preceding or following sounds.

The BASS CLIFF is this sign  placed on the 4th line of the staff, which it encloses with the 2 dots, : It signifies that all notes on that line are symbols of the sound F.

That all notes on the 4th space are symbols of the sound G.

5th line	A.
1st space above	B.
1st ledger line above	C.
2nd space above	D.
2nd ledger line above	E.
3rd space above	F.
3rd ledger line above	G.

It also signifies

that all notes on the 3rd space are symbols of the sound E.

3rd line	D.
2nd space	C.
2nd line	B.
1st space	A.
1st line	G.
1st space below	F.
1st ledger line below	E.
2nd space below	D.
2nd ledger line below	C.
3rd space below	B.
3rd ledger line below	A.

4th space below	G.
4th line below	F.

It also signifies that all notes on the lines or spaces with the signs \sharp or \flat prefixed, are respectively the symbols of the sounds which borrow their names from their immediately preceding or following sounds.

The sounds graver than these by an octave can be represented by writing the words 8^{va.} bassa below the symbols of sounds which represent an 8^{ve.} above those desired to be represented.

By the use of the words 8^{va.} bassa, all sounds can be represented by the symbols of sounds an octave higher, with these words placed under them.

CHAPTER XIII.

ON THE NOTATION OF KEYS.

MAJOR keys are represented by prefixing as many signs of sharps or flats at the commencement of the staff as there are sharps or flats required to name the sounds of the major scale of the key required to be represented. Minor keys are represented by their relative major keys.

The signs so prefixed must be placed on the lines or spaces of the staff, in the same manner as if they were prefixed to notes representing the sounds required to be made sharp or flat.

The signs of the sharps or flats so prefixed affect all the sounds of the same name as that of the sharps or flats, unless negatived by the use of the sign \natural .

The relative minor keys cannot be distinguished from

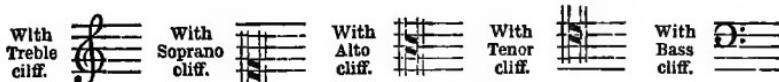
their relative majors by this mode of representation, which is in general use; but it can easily be seen, by looking at the notes placed throughout the staff, whether they belong to the major key or its relative minor, and consequently whether the key is the major key represented, or its relative minor.

If neither flat nor sharp is placed at the commencement of the staff, the key represented is either C, or its relative minor, A.

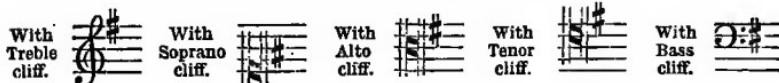
If the sign of 1 sharp is placed on the staff, the key represented is either G, or its relative minor, E, and the sharp is F sharp, because the scale of G requires 1 sound, viz. the F, to be sharp.

The part of the staff in which the sign of this 1 sharp, viz. F sharp, is placed, depends (according to the general rule given before) on the kind of cliff used in the staff. If the Treble cliff, the sharp must be placed on the 5th line (rendering every F sharp throughout the staff); if the Soprano cliff is used, the sharp must be placed on the 2nd space; if the Alto cliff, on the 4th space; if the Tenor cliff, on the 1st space above; if the Bass cliff, on the 4th line.

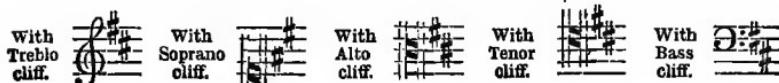
NOTATION OF KEY OF C, OR A MINOR.



NOTATION OF KEY OF G, OR E MINOR.



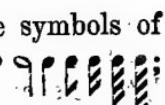
NOTATION OF KEY OF D, OR B MINOR.



CHAPTER XIV.

ON THE NOTATION OF TIME.

THE method of representing by symbols "the comparative periods of time, and the comparative periods of rests," is called the "notation of time."

In order to represent the first of these, the symbols of sound are made to assume various shapes, as 

also the same with one or more dots following them, thus,
 or  And to represent the latter, viz. the rests, the following;
 --- or  --- or  --- or  --- etc.

DEFINITION.

 This represents a semibreve.

 a minim.

 a crotchet.

 a quaver.

 a semiquaver.

 a demisemiquaver.

 a semidemisemiquaver.

And with the dot, for example,

 a dotted semibreve, etc.

Or with two dots, for example,

 a double dotted minim, etc.

DEFINITION.

- This mark under a line represents a semibreve rest.
- This mark upon a line represents a minim rest.
- This mark represents a crotchet rest.
- a quaver rest.
- a semiquaver rest.
- a demisemiquaver rest.
-  a semidemisemiquaver rest.

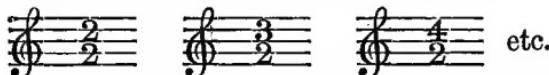
A dot after the rest makes the rest a dotted rest, and two dots make it a double dotted rest; for example,

- . a dotted semibreve rest.
- .. a double dotted semibreve rest.

CHAPTER XV.

ON THE NOTATION OF MEASURES OF TIME.

MEASURES of time are placed between two lines called bars, drawn thus | | on the staff at right angles to it; and the value of the measure is represented by figures placed on the commencement of the staff; for example,



$\frac{2}{2}$	indicate that the measure is of the value of 2 minims.
$\frac{3}{2}$	3 minims.
$\frac{4}{2}$	4 minims.
$\frac{6}{2}$	6 minims.
$\frac{2}{4}$	2 crotchets.
$\frac{3}{4}$	3 crotchets.
$\frac{4}{4}$ or the letter C	4 crotchets.
$\frac{6}{4}$	6 crotchets.

$\frac{2}{8}$ indicate that the measure is of the value of 2 quavers.

$\frac{3}{8}$	3 quavers.
$\frac{6}{8}$	6 quavers.
$\frac{2}{16}$	2 semiquavers.
$\frac{4}{16}$	4 semiquavers.

Rule. To represent the kind of period of time each measure is to contain, place on the staff that figure which is the number of the kinds of periods which are equivalent to a semibreve; for example, if minims are to be represented, place 2, because 2 minims are equivalent to 1 semibreve; if crotchets, place 4, etc. Over this figure place the number of minims, or crotchets, etc. which the measure is to contain; for example, if it is to contain 2 minims place the figures thus, $\frac{2}{2}$; if 2 crotchets thus, $\frac{2}{4}$, and so on.

Remark. Each measure must contain the number of periods of time indicated, its equivalent in other periods, or its equivalent in rests. The value of the measures in actual time can be known on finding the value of the semibreve, or minim, etc. of which the measure is composed; or the actual value of the measure can be given by the pendulum, and the value of the parts compared with it.

Measures formed of trioles or quintoles are not represented on the staff; but a measure or part of a measure can consist of a triole, or of a quintole, and the triole or quintole is represented by placing the figure 3 or 5 over such periods of time as are turned into trioles, or quintoles, of various kinds of periods; for example, if a triole of crotchets is to be represented, it is done thus ; if a quintole of quavers, thus ; in the first instance, if the measure is that of $\frac{2}{4}$, the triole, as represented, is its equivalent; the quintole of 5 quavers is also its equivalent; or if the measure is $\frac{4}{4}$, the triole of 3 crotchets is the equivalent of half the measure, so also is the quintole of 5 quavers.

EXERCISES ON CHAPTER V.

Exercise 1. Write the names of the minor seconds of the following sounds; C, C sharp, D flat, D, D sharp, E flat, E, F, F sharp, G, G sharp, A, A sharp, B flat, B.

- Ex. 2. Write the major seconds of the same sounds.
- Ex. 3. Write the augmented seconds.
- Ex. 4. Write the diminished thirds,
- Ex. 5. Write the minor thirds.
- Ex. 6. Write the major thirds.
- Ex. 7. Write the augmented thirds.
- Ex. 8. Write the diminished fourths.
- Ex. 9. Write the perfect fourths.
- Ex. 10. Write the augmented fourths.
- Ex. 11. Write the diminished fifths.
- Ex. 12. Write the perfect fifths.
- Ex. 13. Write the augmented fifths.
- Ex. 14. Write the diminished sixths.
- Ex. 15. Write the minor sixths.
- Ex. 16. Write the major sixths.
- Ex. 17. Write the augmented sixths.
- Ex. 18. Write the diminished sevenths.
- Ex. 19. Write the minor sevenths.
- Ex. 20. Write the major sevenths.
- Ex. 21. Write the diminished eightths.
- Ex. 22. Write the acute perfect eightths.
- Ex. 23. Write the grave perfect eightths.

EXERCISES ON THE INVERSION OF SIMPLE INTERVALS.

- Ex. 24. Describe the kind of interval produced by the inversion
Of a minor, major, and augmented second.
- Ex. 25. Of a diminished, minor, major, and augmented third.
- Ex. 26. Of a diminished, perfect, and augmented fourth.
- Ex. 27. Of a diminished, perfect, and augmented fifth.
- Ex. 28. Of a diminished, minor, major, and augmented sixth.
- Ex. 29. Of a diminished, minor, and major seventh.
- Ex. 30. Of a diminished, and perfect eighth.

EXERCISES ON COMPOUND INTERVALS.

- Ex. 31. Write the names of the minor ninths of the following sounds; C, C sharp, D flat, D, D sharp, E flat, E, F, F sharp, G, G sharp, A, A sharp, B flat, B.
- Ex. 32. Write the major and augmented ninths of the above sounds.
- Ex. 33. Write the diminished, minor, major, and augmented tenths.
- Ex. 34. Write the diminished, perfect, and augmented elevenths.
- Ex. 35. Write the diminished, perfect, and augmented twelfths.
- Ex. 36. Write the diminished, minor, major, and augmented thirteenths.
- Ex. 37. Write the diminished, minor, and major fourteenths.
- Ex. 38. Write the diminished, perfect, and augmented fifteenths.

EXERCISES ON THE INVERSION OF COMPOUND INTERVALS.

- Ex. 39. Describe the kind of interval produced by the inversion
Of an augmented eighth.
- Ex. 40. Of a minor, major, and augmented ninth.
- Ex. 41. Of a diminished, minor, major, and augmented tenth.
-

EXERCISES ON CHAPTER VI.

Ex. 1. Write successively the names of the sounds forming the ascending and descending major scale of the following sounds; C, C sharp, D flat, D, D sharp, E flat, E, F, F sharp, G, G sharp, A flat, A, A sharp, B flat, B.

Ex. 2. Write successively the names of the sounds forming the ascending and descending minor scale of the aforementioned sounds.

Ex. 3. Write successively the ascending and descending chromatic sounds of the aforementioned sounds.

Ex. 4. Describe the names of the scales, in the order of their relationship, which are related to the scales of the aforementioned sounds.

EXERCISES ON CHAPTER XII.

Ex. 1. Notate on the staff, with the aid of the Treble cliff, all the sounds between G and \overline{G} , writing the names of the sounds over the notation.

Ex. 2. Notate all the sounds between A and A, with the Soprano cliff.

Ex. 3. Notate all the sounds between C and C, with the Alto cliff.

Ex. 4. Notate all the sounds between A and A, with the Tenor cliff.

Ex. 5. Notate all the sounds between C and F, with the Bass cliff.

EXERCISE ON CHAPTER XIII.

Represent on the staff all the major and minor keys, with the aid of all the cliffs; viz. first with the Treble, then with the Soprano cliff, etc.

EXERCISES ON CHAPTER XIV.

Ex. 1. Notate on the staff, with the aid of any one of the cliffs, all the sounds between G and G, representing the sounds in the comparative periods of time that are used; viz. first as semibreves, then as minimis, etc.

Ex. 2. Represent on the staff all the rests that are made use of.

EXERCISES ON CHAPTER XV.

Ex. 1. Represent measures of 2, 3, 4, and 6 minimis.

Ex. 2. Represent measures of 2, 3, 4, and 6 crotchets.

Ex. 3. Represent measures of 2, 3, 4, and 6 quavers.

PART II.

CHAPTER XVI.

ON THE PROGRESSION OF ONE SOUND TO ANOTHER OF THE SAME KEY FORMING A MELODY.*

DEFINITIONS.

1. The *tonic* is the key note—the first sound of a scale or key.
2. The *supertonic* is the major second of the key.
3. The *mediant* is the major third when the key is major, the minor third when the key is minor.
4. The *subdominant* is the perfect fourth.
5. The *dominant* is the perfect fifth.
6. The *superdominant* is the major sixth when the key is major, the minor sixth when the key is minor.
7. The *leading note* is the major seventh.

THEOREM I.

Each sound of a major key can progress to any other sound, with the following exceptions:—

- 1st. The leading note, when a penultimate,† should rise a semitone; viz. to the tonic.
- 2nd. The leading note should never fall to the tonic.
- 3rd. The leading note should never rise to the tonic by a greater interval than a semitone.

* Any progression of sounds is called a melody, combined or not with others; but a melody, to be attractive to the ear, is dependant on time and rhythm; the study of which belongs to the art of composition.

† *Vide Note 2 on the Penultimate, page 45.*

EXERCISE.

Write a succession of diatonic sounds in all the major keys.

Advice 1. Commence and finish on either the tonic, mediant, or dominant, but prefer the tonic to the other two sounds.

2. Make use of small intervals for progression in preference to the greater intervals.

3. Progress by various intervals, instead of always by the same. A progression by fifths or octaves is particularly to be avoided.

4. Let the penultimate sound be either the leading note followed by the tonic, the supertonic followed by the tonic or mediant, or the dominant followed by the tonic or mediant; the subdominant followed by the mediant, and the superdominant followed by the tonic or dominant are, however, occasionally used as penultimates, after a "close" has been made with either the leading note, supertonic, or dominant.

Remark. The general use of the dominant as a penultimate renders it unsatisfactory as a final sound, unless it is combined with two or more sounds.*

5. Notate the sounds on the staff with the aid of one of the clefs, but without putting them into measures.

N.B.—Attend to this advice in writing all the prescribed exercises.

THEOREM II.

Each sound of a minor key can progress to any other,† with the same exceptions as those of the major key, and the following:—

1. Avoid progression by the interval of an acute augmented fourth or fifth from the mediant. Ex. 3.

2. Avoid progression from the leading note to the grave mediant. Ex. 4.

* *Vide* Triads.

† Although progression between the leading note and acute mediant is allowed, it is generally avoided on account of the awkwardness of the interval of a diminished fourth.

3. Avoid the use of the major sixth, except it is followed by the major seventh.*

4. Avoid the frequent use of the minor seventh, except it is followed by the minor sixth, as the major seventh being the leading note characterizes the modern minor key.

EXERCISE.

Write a succession of diatonic sounds in all the minor keys.

Advice. The same as for major keys.

NOTE 1. Every minor key has two more sounds connected with it than with its relative major key. The sixth and seventh of the minor key being sometimes minor and sometimes major. Thus, in the ascending minor scale the sixth and seventh of the key are generally both major, and in descending both minor; although it is correct to use the minor sixth and major seventh in ascending and descending. It follows, therefore, that the progression of one sound to another in a minor key is more varied than in the major; although all progressions are not allowed.

NOTE 2. By the penultimate sound is meant the last sound but one in a "close" or "cadence," and not the penultimate sound that is heard; for sometimes the cadence into the tonic is followed by other sounds which are the harmonics† of the tonic; viz. some of its octaves, mediants or dominants.

* As the major sixth is only introduced in the minor key in order to form a more equal scale than can be made with the minor sixth and major seventh, it is best only used preceded by the fifth of the key. Ex. 5.

† *Harmonics* are the accessory sounds which attend any given sound. Every given sound being composed of accessory sounds of acuter pitch, but so combined that the sound of the gravest pitch predominates, and gives it identity. A musical sound can be divided like a ray of light, and shown to be composed of other sounds, forming a kind of "prismatic spectrum" of sounds in place of colours.

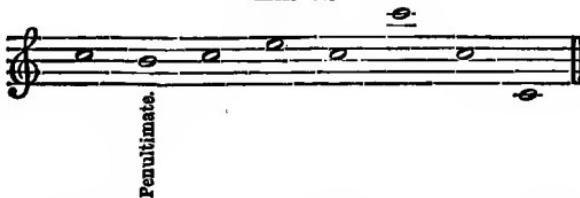
In order to divide a musical sound into its component parts or produce its harmonics, let a string, producing a musical sound, be touched lightly, exactly in the middle, during its vibration; it will divide itself into two parts, forming a nodal point, and instead of the natural sound, an harmonic, the octave will be heard, and continue to be heard after the finger is withdrawn. If the string be touched at a third of the length from either end, it will divide itself into three parts, and the twelfth will be heard. If touched at the fourth part, it will divide itself into four parts, and the double octave will be heard. If touched at the fifth part, it will divide itself into five parts, and the seventeenth or mediant of the major key will be heard. The remaining harmonics are not se-

In example 2, in the key of C, B is the penultimate sound of the cadence; for the sounds which follow C, the tonic, are harmonics of C.

Ex. 1.



Ex. 2.



Ex. 3.



Ex. 4.

Ex. 5.

easily produced, with the exception of that produced by touching of the seventh of the string which produces the flat seventh; viz. an harmonic sound, which a Tyro finds it difficult to avoid producing on the trumpet, horn, and similar instruments.

Harmonic sounds are sounds produced by aliquot parts of a string producing the given sound. All aliquot parts of a string produce harmonics. The harmonics produced by the 18 : 12 : and 17 aliquot parts (viz. the octave, dominant, and mediant of major keys) are easily distinguished by the ear. The fact that a string can execute vibrations among its parts besides one principal vibration from end to end is now indisputable. That the vibrations of one division of the string move in one direction, whilst the next part moves in the contrary, is proved by the point of division called the "nodal point" being at rest; no rest could otherwise be maintained. That the "points" are at rest, can be proved by placing a small piece of paper on them.

Rule. To find out what interval the harmonic sound is to the sound of the whole string, double the portion of the string producing the harmonic, as often as it can be doubled, without making it greater than the whole string, and the proportion of the whole string will give the ratio of the intervals of the number of doublings, showing how many octaves the harmonic sound is above that of the whole string.

THEOREM III.

Any chromatic sound lying between the diatonic sounds of a key can be introduced between the diatonic, when preceded and followed by the diatonic next to it.

Exception. As a penultimate a chromatic sound should not be introduced.

Remark. Chromatic sounds are occasionally introduced into a diatonic melody without being preceded by their nearest diatonic; but this mode is apt to make the melody harsh and unvocal.

EXERCISE.

Write a succession of sounds in any key, introducing some chromatic sounds between the diatonic.

Advice. Only occasionally introduce the chromatic sounds.

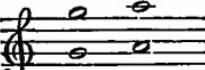
CHAPTER XVII.

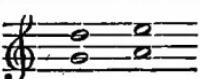
ON HARMONY.

DEFINITIONS.

1. HARMONY is the combination of two or more musical sounds.

NOTE. By "harmony," or "being in harmony," the ancients meant a series of sounds properly related to each other—those produced by certain mathematical divisions of a string—and not a combination of consonant or dissonant sounds as it now signifies.

2. Consecutive octaves are intervals of octaves immediately following each other. Ex. 

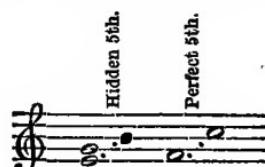
3. Consecutive fifths are intervals of fifths immediately following each other. Ex. 

4. An "hidden octave" is the octave which occurs between two combinations of sounds, when the first combination is followed by another, whose sounds contain the interval of an octave, and when the progression of the acuter sound of the first combination to that of the acuter sound of the second combination, is similar to that of the graver sound of the first combination to that of the graver sound of the second combination. For example :



In this example the combination $\frac{G}{B}$ is followed by another, $\frac{C}{C}$ containing the interval of an eighth; and as G the acuter sound of the first combination rises to C, and B the graver sound of the first combination rises to C, their progression is similar, and the hidden eighth is the octave made by G in rising to C, passing over B (which would be a real octave with B of the lower part), a perfect eighth succeeding, viz. $\frac{C}{C}$.

5. An "hidden fifth" is the fifth which occurs between two combinations of sounds, when the first combination is followed by another containing the interval of a fifth, provided the progression of the acuter sound of the first combination to that of the acuter sound of the second, is similar to that of the graver sound of the first to that of the graver sound of the second combination. For example :



In this example the combination $\frac{G}{E}$ is followed by another,

$\frac{C}{F}$, containing the interval of a fifth; and as G, the acute sound of the first, rises to C the acute sound of the second combination, and E, the graver sound of the first rises to F the graver sound of the second combination, the progression of the parts is similar, and the hidden fifth is the fifth made by the G in rising to C, passing over the B (which would be a real fifth with E of the lower part), a perfect fifth succeeding, viz. $\frac{C}{F}$.

6. *Consonant Diatonic Intervals* are the diatonic intervals of the minor and major third, perfect and augmented fourth, diminished and perfect fifth, minor and major sixth, and octaves. In addition to these, in minor keys, the interval of the augmented second between the superdominant and leading note, its inversion, the diminished seventh, the diminished fourth between the leading note and acute mediant, and the augmented fifth between the leading note and grave mediant, as well as all compounds of these intervals.

7. *Dissonant Diatonic Intervals* are the diatonic intervals of the minor and major second, the minor and major seventh, and all compounds of these dissonant diatonic intervals; viz. the minor and major ninth, etc.

8. *Consonant Chromatic Intervals* are all intervals of augmented seconds not consonant diatonic; all augmented thirds, and all minor and major thirds not consonant diatonic; all diminished fourths, and all perfect and augmented fourths not consonant diatonic; all augmented fifths, and all diminished and perfect fifths not consonant diatonic; all diminished sixths, and all minor and major sixths not consonant diatonic; all diminished sevenths not consonant diatonic, as well as all compounds of these intervals.

9. *Dissonant Chromatic Intervals* are all semitone intervals not diatonic; all minor and major seconds not dissonant diatonic; all diminished thirds, all augmented sixths, and all minor and major sevenths not dissonant diatonic; all diminished and augmented eightths, and all the compounds of these dissonant chromatic intervals.

10. *Consonant sounds* are those which, when combined, do not require to be followed by others, in order to render the use of them agreeable to the ear; they are sounds at consonant diatonic and consonant chromatic intervals.

NOTE. The consonance, or dissonance of two combined sounds, can be known by the ratio of their vibrations; for it is an axiom, that the more simple the relation which the vibrations of one sound bear to another, the more perfect is the consonance. Thus, a sound and its octave form a consonance, the ratio of the vibrations being that of 1 to 2.

Sounds combined with others, at other intervals beside an octave, and described as consonant sounds, can in a similar way be shown to be so, from the simplicity of the ratio of their vibrations; they comprise all those *within the interval of an octave*, distant more than two and not greater than nine semitones; and *beyond the interval of an octave*, all distant at compound intervals of those within.

Sounds combined with others, and described as dissonant sounds, can be shown to be so from the want of simplicity in the ratio of vibrations of the two sounds; for example, those combined at the interval of a semitone, the ratio of vibration being that of 15 to 16. Dissonant sounds comprise those *within the octave*, distant less than three and more than nine semitones; *beyond the octave*, all distant at compound intervals of those within.

The way in which the vibrations of two sounds coincide, can be shown by conceiving the vibrations of a sound to be indicated by a series of equidistant dots; thus Then in two sounds, in which the vibrations are as 1 to 2, whatever number of vibrations there are in the one, there will be always double the number in the other; thus : * : * : * : * : * Here the coincidence takes place at every second vibration, similar to that of a sound and its octave.

11. *Dissonant sounds* are those which, when combined, require to be followed by other sounds, in order to render the use of them agreeable to the ear; they are sounds at dissonant diatonic and dissonant chromatic intervals.

12. *Consonant diatonic sounds* are the sounds of the key which are at consonant intervals—sounds at consonant diatonic intervals.*

13. *Dissonant diatonic sounds* are the sounds of the key which are at dissonant intervals—sounds at dissonant diatonic intervals.†

14. *A Chord* is the combination of two or more sounds.

* *Vide Definition 6.*

† *Vide Definition 7.*

15. *The Inversion of a Chord* is the inversion of its gravest sound; so that one of the other sounds becomes the gravest.

16. *The Root of a Chord* is the grave sound from which the chord originates.

Remark. The grave sound of a chord is not always its "root"—thus, the grave sound of a chord, which is an inversion of another, is not the root.

THEOREM I.

Each sound belonging to a key can be combined with one, or two, other sounds of the key; and some with three, four, and five other sounds, in addition to the sounds of their octaves.

THEOREM II.

Harmony is either consonant or dissonant, according as it consists of purely consonant sounds, or of a sound or sounds combined with one or more dissonant sounds.

CHAPTER XVIII.

Harmony can be thus divided:—

1. Consonant harmony of two diatonic sounds.
2. Consonant harmony of a diatonic and a chromatic sound.
3. Consonant harmony of two chromatic sounds.
4. Dissonant harmony of two diatonic sounds.
5. Consonant harmony of three diatonic sounds, forming major, minor, and diminished triads.
6. Consonant harmony of three diatonic sounds, forming chords, inversions of major, minor, and diminished triads.
7. Consonant harmony of three sounds, forming augmented triads.

8. Consonant harmony of three sounds, forming chords, inversions of augmented triads.

9. Dissonant harmony of three diatonic sounds, forming chords, suspensions of triads.

10. Dissonant harmony of three diatonic sounds, forming chords, suspensions of the inversions of triads.

11. Dissonant harmony of two diatonic and one chromatic sounds, forming major diminished triads and their inversions, also double diminished triads and their inversions.

12. Dissonant harmony of four sounds, forming chords of the seventh, their inversions and suspensions.

13. Dissonant harmony of five sounds, forming chords of the major and minor ninth, their inversions and suspensions.

14. Other dissonant combinations.

NOTE. When a sound foreign to the key is combined with a diatonic, forming properly prepared dissonant harmony, a change of key at once takes place; so that the sound which was chromatic is no longer. This will account for the absence of any Theorem about the Dissonant Harmony of a combined Chromatic and Diatonic sound.

CHAPTER XIX.

DIVISION I.

ON CONSONANT HARMONY OF TWO DIATONIC SOUNDS.

MAJOR KEYS.

THEOREM.

Each sound of a major key can be combined with any of its consonant diatonic sounds,* forming consonant harmony of two sounds.

* *Vide* Definition 12, Chapter xvii.

Rules for the combination and progression of two combined consonant diatonic sounds.

1. When the grave sound at the commencement is the tonic, it should be combined with either the mediant, dominant, or tonic as unison or octave.
2. The grave sound in a final combination should be the tonic.
3. The acute sound in a final combination should be either the mediant or tonic.
4. The penultimate combination should be either the supertonic, or dominant, combined with the leading note; the dominant as a grave sound combined with the supertonic, or the leading note as a grave sound combined with the subdominant. The subdominant as a grave sound combined with the superdominant or supertonic can also occasionally form a penultimate, after a "close" has been made with either the supertonic or dominant combined with the leading note, or the leading note as a grave sound combined with the subdominant.



5. A combination consisting of a sound and its augmented fourth can never be a penultimate.
6. Avoid such progressions as produce consecutive fifths and eightths.
7. Avoid such progressions as produce hidden fifths and eightths.
8. The leading note should not be combined with its octave.

9. In a penultimate combination, when to the leading note the diminished fifth is added, the leading note should progress to the tonic, and its diminished fifth, viz. the subdominant, should fall to the mediant. Ex. 1.

When the same intervals are used, but not in a penultimate combination, the diminished fifth may be changed to a minor sixth, or minor third. Examples 2 and 3. Or the intervals may be inverted. Ex. 4.

Ex. 1. Ex. 2. Ex. 3. Ex. 4.

Key of C.

10. When to the subdominant its augmented fourth, viz. the leading note, is added, the leading note should rise to the tonic, and the subdominant fall to the mediant, Ex. 1; or, without changing the leading note, the subdominant may be succeeded by the dominant, Ex. 2; or the intervals can be inverted, Ex. 3; sometimes these intervals are succeeded by others,* as in Examples 4, 5, 6, 7, and 8.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5.

Ex. 6. Ex. 7. Ex. 8.

NOTE. The combination of two diatonic sounds at augmented or diminished intervals is prohibited by Albrechtsberger and other strict theorists; such combinations are, however, frequently met with in the works of the great composers, and consequently the prohibition need not be regarded.

* In Ex. 1, is shown the best progression. The other progressions are not often used

EXERCISE.

Form harmony on all the sounds of any major key, attending to the rules for the combination and progression of sounds, and to the following.

Advice 1. Avoid combining a sound with its perfect fourth; for, although a consonant interval, it is always treated as a discord.*

NOTE. Sounds at the interval of a perfect fourth used to be considered to produce (as they actually do) consonant harmony. The ratio of vibration is of the simplest kind.

In the earlier periods of musical knowledge, to the sounds of the Gregorian Chants another part used to be added, at the interval of a perfect fourth. Mozart records having heard Traditional Harmony of this kind.

The ears of modern musicians are educated to consider sounds combined at the interval of a fourth as producing a discord. Albrechtsberger taught that the fourth in the chord of the $\frac{4}{3}$ (the second inversion of a triad) was a discord, although the absurdity seems apparent of arguing that the *inversion* of a concord can become a discord.

There is no doubt a sound combined with another at the interval of an acute fourth is best followed by a combination of the same sound with another at the interval of a third. This particular treatment is that of discords, but the combination is a concord. Ratio of vibration 3 to 4.

2. Avoid combining a sound with its perfect fifth, except the super tonic with the dominant. The proper progressions of these two sounds combined is shown in Examples 1 and 2.

Ex. 1.

Ex. 2.



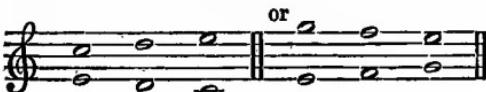
3. The best grave sound to commence with is the tonic, but the dominant can also be used, combined with either its third or fifth, unison or octave.

* *Vide* Remark, page 63.

4. Avoid the combination of a sound with its sixth at commencement.

5. The octave is best used only with the tonic, at the commencement or end, or with the dominant at the commencement; but when used as in the following example, or in like manner, it is not objectionable.

Example, in which the octave is used in contrary motion.



MINOR KEYS.

THEOREM.

Each sound of a minor key can be combined with any of its consonant diatonic sounds, forming consonant harmony of two sounds.

Remark 1. The rules for the combination and progression of two combined consonant diatonic sounds in a major key are to be observed in combining sounds in a minor key.

Remark 2. When the superdominant and leading note are combined, forming an interval of an augmented second and diminished seventh, Ex. 1; the following are the three modes of progression, and the rules to be observed.

Ex. 1.

Key of C minor.

Ex. 2.

Ex. 3.

Modes of Progression.

1. The superdominant progresses whilst the leading note is retained.

2. The leading note progresses whilst the superdominant is retained.

3. Both sounds progress simultaneously.

Rules.

1. When the leading note is retained, the superdominant can progress to any sound at a consonant diatonic interval from the leading note, Ex. 2, page 56.

2. When the superdominant is retained, the leading note can progress to any sound at a consonant diatonic interval from the superdominant, Ex. 3, page 56.

3. When both sounds progress simultaneously,* the leading note can proceed *upwards* by an interval of a minor third, diminished fifth, or diminished seventh, Ex. 1, p. 58; *downwards* by an interval of an augmented second, augmented fourth, or major sixth, Ex. 2; whilst the superdominant can proceed *upwards* by an interval of an augmented second, augmented fourth, or major sixth, Ex. 3; *downwards* by an interval of a minor third, diminished fifth, or diminished seventh, Ex. 4. The leading note can also proceed to the tonic, whilst the grave superdominant proceeds to the mediant by the interval of a perfect fourth, Ex. 5.

Remark 3. When the leading note and mediant are combined, forming an interval of an augmented fifth and diminished fourth, the following rules are to be observed for the progression of the combination, Ex. 6.

Rules.

4. When the leading note is retained, the mediant, if a graver sound, can progress as in Ex. 7; if an acuter sound, as in Ex. 8.

5. When the mediant is retained, the leading note should progress to the tonic, Ex. 9.

6. When both progress simultaneously, the leading note should proceed to the tonic, and the mediant to the superdominant, Ex. 10.

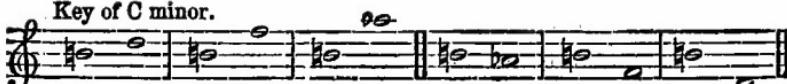
N.B.—The above six rules are subject to those previously given for the progression† and combination of diatonic sounds.

* For progression to a dissonance, *vide* Rule 9, Chapter XIX.

† Chapter XVI, page 44.

Ex. 1.

Key of C minor.

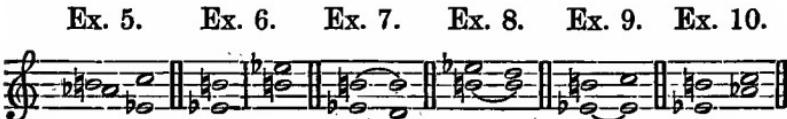


Ex. 2.

Ex. 3.



Ex. 4.



Ex. 5. Ex. 6. Ex. 7. Ex. 8. Ex. 9. Ex. 10.

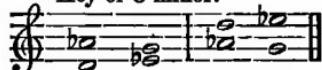
EXERCISE.

Form harmony on all the sounds of any minor key.

Advice. The same as given for writing in the major keys.

Remark 4. The progression of the diminished fifth between the supertonic and superdominant; and its inversion, the augmented fourth, is similar to the progression of the

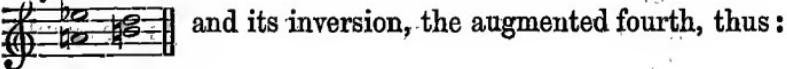
same intervals in major keys. Ex. Key of C minor.



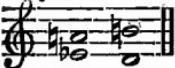
Vide also Examples 1 to 12, page 54, which show, by analogy, the other kinds of progression.

Remark 5. The progression of the diminished fifth between the major sixth of the key and the mediant, is thus:

Key of C minor.



Key of C minor.



CHAPTER XX.

DIVISION II.

ON THE CONSONANT HARMONY OF A DIATONIC AND CHROMATIC SOUND.

THEOREM.

The diatonic sounds of a key can be combined with certain chromatic consonant sounds,* forming consonant chromatic harmony of two sounds. They can be combined with sounds at the following chromatic intervals, viz. chromatic augmented seconds, minor and major thirds, augmented fourths, diminished and augmented fifths, and minor and major sixths.

Rules for the combination and progression of a combined chromatic and diatonic sound.

1. The diatonic sounds of a key should not be enharmonically† changed, in order to form harmony of a diatonic and chromatic sound.

2. The chromatic sound of a combination must always proceed from, and be followed by, its nearest diatonic sound; for example, if C sharp is used in the key of C, C natural or D must have immediately preceded it, and it must be followed by D or C natural.

Corollary. No commencement or ending can be made with a chromatic combination.

3. When to a diatonic sound its acute chromatic diminished fifth or grave augmented fourth is added, the diatonic sound should progress to the sound a semitone above; so that, it is only the mediant in major keys, and the dominant in minor keys, that can be so combined, unless the combination progresses to another chromatic combination, as in the following Examples.

* Definition 10, page 50.

† Chapter IV, page 7.

The diagram illustrates harmonic progressions across two staves. The top staff, labeled 'Key of E flat major.', shows three measures. The first measure contains a 'Diminished fifth.' chord (B-flat, D-flat, F, A-flat) followed by a 'Chromatic.' sound (G). The second measure contains a 'Diminished fifth.' chord (E-flat, G, B-flat, D) followed by a 'Chromatic.' sound (A). The third measure contains a 'Diminished fifth.' chord (A-flat, C, E-flat, G) followed by a 'Chromatic.' sound (D). The bottom staff, labeled 'Key of C minor.', shows two measures. The first measure contains a 'Dominant' chord (G, B, D) followed by a 'Chromatic.' sound (E). The second measure contains a 'Key of E flat major.' chord (B-flat, D, F, A-flat) followed by a 'Chromatic.' sound (C) and a 'Mediant' sound (E).

4. When to a diatonic sound its grave diminished fifth or acute augmented fourth is added, the diatonic sound should progress to its nearest grave diatonic, and the chromatic sound should rise to its nearest acute diatonic.

This diagram shows a musical example where a diatonic sound (G) is combined with its acute augmented fourth (D-sharp). The progression consists of a diatonic sound (G), a sharp sign indicating the addition of the augmented fourth, and another diatonic sound (G).

5. When a sound is combined with its chromatic augmented second, the diatonic sound should be retained to form part of the next combination, consisting of a sound and its diatonic third. Ex.

This diagram shows a musical example where a diatonic sound (G) is combined with its chromatic augmented second (A-sharp). The progression consists of a diatonic sound (G), a sharp sign indicating the addition of the augmented second, and another diatonic sound (G).

EXERCISE.

Form harmony of two consonant sounds in any key, introducing the combination of a chromatic with a diatonic Key of C.

This diagram shows a musical example where a diatonic sound (G) is combined with its chromatic augmented second (A-sharp) in the Key of C. The progression consists of a diatonic sound (G), a sharp sign indicating the addition of the augmented second, and another diatonic sound (G).

CHAPTER XXI.

DIVISION III.

ON THE CONSONANT HARMONY OF TWO CHROMATIC SOUNDS.

THEOREM.

The chromatic sounds lying between the diatonic sounds of a key can be combined with other chromatic sounds. They can be combined with their minor or major thirds, or minor or major sixths, whenever such intervals produce chromatic sounds without enharmonically changing the diatonic sounds of the key. For example: in the key of C the chromatic sound A sharp can be combined with the chromatic sound C sharp; but the chromatic sound G sharp cannot be combined with E sharp, according to this theorem,* because E sharp enharmonically changes the sound F, which belongs to the key of C.

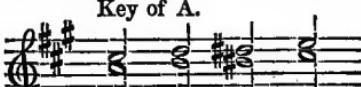
Rule for the progression of two combined chromatic sounds.

The chromatic sounds of a combination composed of the intervals of a minor or major third, or a minor or major sixth, should proceed from, and progress to, their nearest diatonic; both must similarly progress—that is, they must both rise or both fall.

EXERCISE.

Write a succession and combination of two consonant sounds in any key, introducing combined chromatic sounds.

Key of A.

Ex. 

Chromatic.

* Such a combination, however, can be made, by accepting the combination as a modulation into another key.

CHAPTER XXII.

DIVISION IV.

ON THE DISSONANT HARMONY OF TWO DIATONIC SOUNDS.

DEFINITION I.

The preparation of a discord is the introduction of the sound that forms the discord into the chord preceding that in which the discord occurs, and in the same part—that is, as an acute sound, if acute as a dissonant; or as a grave sound, if grave as a dissonance. In the following example, the second combination consists of C and D; C is the discord against D, and C is prepared in the previous combination,

being a concord with E. Ex.



DEFINITION II.

The resolution of a discord is its proper progression to a concord.

THEOREM.

Every sound of the key can be combined with a dissonant diatonic sound,* forming a discord or combination of dissonant sounds; provided in all cases, except those of the minor seventh, and the chromatic augmented sixth, the discord is prepared, and in all cases properly resolved.

Rules for the progression of discords.

1. The sound prepared as a discord should fall to the nearest diatonic sound; that is, it should fall either a tone or semitone, according to its position in the key, except the

* Definition 13, page 50.

major seventh on the tonic, which can rise one semitone. In the following example, C, the discord, resolves to B. Ex. 1.

Ex. 1.



Ex. 2.

 \overline{d}

Remark. The discord of the major second and minor seventh may be sometimes inverted before any resolution takes place. Ex. 2.

2. The resolution of a discord must not be doubled; that is, the sound which is the resolution of the discord cannot be combined with its octave, except in the discord of the ninth, and when the major seventh resolves to a perfect eighth.

3. No chromatic interval can be prepared as a discord;* but a diatonic sound and a chromatic or two chromatic sounds can be combined at the interval of an augmented sixth, forming dissonant harmony. The progression of the chromatic sounds at the interval of an augmented sixth is as follows; the acute must rise, and the grave fall one semitone.

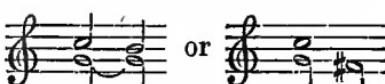
Ex. in Key of D.



Remark. Sounds at intervals of a perfect fourth, although producing consonant harmony, are practically considered as dissonant sounds, and follow the same general rules, i. e. the fourth should be prepared and resolved.

4. A combination containing an interval of the perfect fourth should be followed by one containing the interval of a major or minor third on the grave sound, or the grave sound should fall a semitone, producing the combination of a sound

and its diminished fifth. Ex.



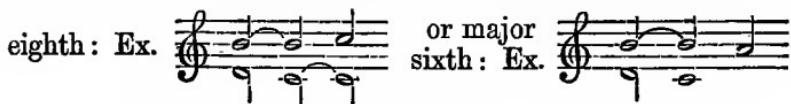
* Except when used as a modulation to another key.

5. The discord of the minor seventh should, in resolving, form a third by the lowest sound rising a fourth; or a sixth major or minor, according to the key. Ex.



Remark. The minor seventh, except when it occurs on the dominant, is more frequently than otherwise prepared like other discords.

6. The discord of the major seventh, which is used occasionally on the tonic, should, in resolving, form a perfect



7. The discord of a ninth should, in resolving, form a perfect eighth. Ex.

8. The following progression of ninths is not allowed, on account of the *effect* of consecutive octaves being produced.



9. The discord of the minor seventh on the dominant can in minor keys be preceded by a combination of the leading note and grave superdominant,* or by any of the combinations to which those two sounds can progress.†

10. The discord of the minor seventh can be retained, and made to prepare the fourth. Ex.

* *Vide Chapter XIX.*

† *Vide Rule 3, page 56.*

EXERCISE.

Write a series of consonant and dissonant combinations in any key. Ex.



CHAPTER XXIII.

DIVISION V.

ON THE CONSONANT HARMONY OF THREE DIATONIC SOUNDS,*
FORMING MAJOR, MINOR, AND DIMINISHED TRIADS.

DEFINITIONS.

A *Triad* is a sound with its third and fifth.

There are four kinds of triads besides the major diminished triad, and the double diminished triad, which are discords:—

1st. A major triad, consisting of a sound with its major third and perfect fifth.

2nd. A minor triad, consisting of a sound with its minor third and perfect fifth.

3rd. A diminished triad, consisting of a sound with its minor third and diminished fifth.

4th. An augmented triad, consisting of a sound with its major third and augmented fifth.

* Independent of the octaves of any such sounds.

ON MAJOR, MINOR, AND DIMINISHED TRIADS IN MAJOR KEYS.

THEOREM.

Upon every sound of a major key a diatonic triad can be formed. The particular kind of triad depends on the kind of third and fifth the sound has according to the key; but as the diminished fifth occurs only on the leading note, triads on other sounds of the key are either major or minor, as the third is major or minor according to the key.

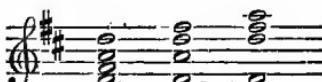
Remark 1. Major triads can be formed on the tonics, subdominants, and dominants of major keys.

Minor triads on the supertonic, mediant, and super-dominants.

Diminished triads only on the leading notes.

Remark 2. The octave* to the gravest sound (called the octave to the bass) can be, and is generally added to the triad; sometimes also the octave to the perfect fifth; but if such sounds happen to be the leading note of the key, and the combination in which they occur forms part of a cadence, the octave cannot be added; likewise to the diminished fifth the octave is not added.

Remark 3. As the triad is composed of two sounds besides its bass or grave sound, it can have either of these two sounds as its acute sound; and when the octave is added to the triad, it gives a choice of three sounds for an acute sound. A triad is thus said to be useable in three close positions. Ex.



* "When it is said "the octave can be added to a sound," or "a sound can be combined with its octave," the addition is not limited to the sound exactly one octave higher, but to any number of octaves that is desirable. A sound that can be combined with its octave can always be combined with its unison to form an additional part; and a sound that cannot be combined with its octave cannot be combined with its unison to form an additional part."

Or in certain extended positions; for example:



EXERCISE.

Write triads on the sounds belonging to the following major keys; C, G, D, A, E, B, F, B flat, E flat, A flat, and D flat, adding the octave to the bass where it is not forbidden.

TRIADS IN KEY OF C.

Ex.

Rule 1. Avoid consecutive fifths and octaves. In order to do this, it is sometimes necessary to leave out the fifth in some triads.

Remark. By "fifths" is understood *perfect* fifths. A perfect fifth is not allowed to follow another perfect fifth in similar progression, but a diminished fifth may follow a perfect fifth, when three or more sounds are combined. Ex.



Rule 2. Hidden octaves and fifths are to be avoided, except in certain progressions. In Ex. 1, the hidden octaves are allowed, although in Ex. 2 a preferable progression is adopted.

Ex. 1.

Ex. 2.

Ex. 1. Ex. 2.

From Ex. 1 it will be seen, that when the bass rises to a given note by the interval of a fourth, and one of the other parts of the triad rises to the same note by the interval of a second, producing a hidden octave, the progression is allowable; when also the bass falls a fourth, and one of the other parts falls from the same note as the bass *only a second*, producing a hidden octave, the progression is allowable. The following progressions are not allowed.

Ex. 3.

Ex. 4.

From Ex. 3 it may be understood that when one of the parts of the triad rises to the same note as that to which the bass rises by any other interval than that of a second, the hidden octaves produced are *not* allowed; or when one of the parts of the triad, as in Ex. 4, falls to the same note as that to which the bass falls, the hidden octaves produced are *not* allowed.

With regard to hidden fifths, progressions producing such are generally to be avoided, but in the following example the hidden fifths are allowable.



From this example it will be seen, that when the note producing the real fifth has progressed by only the interval of a second, the hidden fifth produced is allowable.

Rule 3. Conclude with the tonic as a grave sound.

Rule 4. Let the penultimate sound be the dominant, if "a perfect close or cadence" is required; or the subdominant, if another kind of cadence is desired, called the "Plagal cadence."

Remark. The Plagal cadence is seldom used, except preceded by the perfect cadence.*

Rule 5. When the triad is formed on the leading note, producing the diminished triad, there are three progressions, to one of which it is generally advisable it should proceed.†

1st. The grave sound should ascend one semitone, and the diminished fifth should fall one semitone.

Key of C.



In this example, D could go to G; but it is better to leave out G, the fifth, and let D go to C. The grave sound in this case ought not to be combined with its octave.

2nd. The grave sound should ascend a perfect fourth, or descend a perfect fifth. Ex.

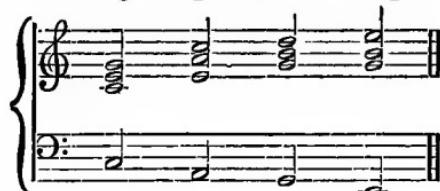
3rd. The grave sound should fall a major third.

* An example of the use of the Plagal cadence, preceded by the perfect cadence, may be seen in Handel's "Hallelujah Chorus," in the *Messiah*.

† For progression to the chord of the sixth, *vide* Chapter XXIV, page 73.



Advice 1. In selecting the sounds of a key upon which to put triads, select at first those distant from each other more than one tone; this will prevent the occurrence of troublesome fifths and eighthths: or let the melody or upper part of the combination of sounds progress in a different direction to that of the bass or grave part; for example:



2. When the bass moves one note, the upper note of the chord should move one note in a contrary direction as in the above Example, in which, whilst A in the bass moves to G, the upper note, C, moves to D.

ON MAJOR, MINOR, AND DIMINISHED TRIADS IN MINOR KEYS.

THEOREM.

Upon every sound of a minor key a triad can be formed. The particular kind of triad depends on the kind of third and fifth the sound has according to the key.

Remark. The sounds properly belonging to minor keys are those at intervals of a major second, minor third, perfect fourth, perfect fifth, minor sixth, and major seventh; but the sixth sound of the key, when it forms part of an *ascending scale*, is generally made with the interval of a major sixth from the tonic; and the seventh sound, when it forms part of the *descending scale*, is generally made with the interval of a minor seventh from the tonic; so that there are two more sounds than in major keys, upon which to form harmony. It is well, however, to avoid using the major sixth from the tonic in minor keys, except it is followed by the major seventh, or of introducing that sound in a triad, except it is required in the

melody, in which case it can form the third of a triad on the subdominant. It can also be introduced as a chromatic sound, or as part of a modulating chord. Example of the major sixth as a chromatic sound:

Key of C minor.

Three diminished triads occur in the minor key; viz. on the supertonic, leading note, and major sixth. The first two should follow either the first or third progression of the diminished triad in the major key. (*Vide Rule 5, Triads in Major Keys.*) The diminished fifth in all these chords should progress to their nearest grave diatonics.

EXERCISE.

Write triads on all the sounds of the minor keys.

Rule 1. Let the third of the triad on the dominant be major when it occurs in a cadence, and let the major third of the dominant prevail throughout.

Rule 2. When a chromatic progression takes place, the sounds forming the chromatic progression should occupy similar parts of the harmony. For example, in the key of C minor, when B flat occurs in a combination as the acutest sound, and B natural occurs in the next combination, B natural should form the acutest sound of the second combination. Any other progression produces what is called a "false relation."

Advice. In forming triads in minor keys, be careful that the succession of grave sounds is according to the rules of progression for sounds in minor keys, Chapter XVI.

ON THE NOTATION OF TRIADS.

A triad is expressed by the figures $\frac{5}{3}$, or $\frac{5}{3}$, and sometimes by the figures 5, or 3. A sharp over a bass note, thus \sharp , shows that the third of the grave sound is to be a semitone higher, a flat, thus b , or $b\flat$, that the third is to be a semitone lower than the diatonic third, or third, according to the notation of the key, a natural n , that the third is to be

natural, i. e. that kind of third which admits of the sound at the interval of a third being named without the aid of flat or sharp. A flat, thus b_5 , that the fifth is to be a semitone lower, and a stroke, thus s , that the fifth is to be a semitone higher than the diatonic fifth, or fifth according to the notation of the key, a natural \natural , that the fifth is to be natural.

CHAPTER XXIV.

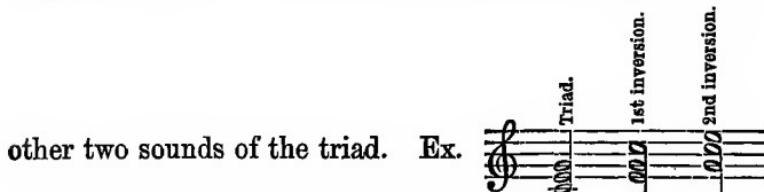
DIVISION VI.

ON THE CONSONANT HARMONY OF THREE DIATONIC SOUNDS, FORMING CHORDS, INVERSIONS OF MAJOR, MINOR, AND DIMINISHED TRIADS.

THEOREM.

A triad has two inversions. The first is called the chord of the sixth; the second the chord of the six-four.

The *first inversion* is formed by taking the third of the bass or grave sound of a triad as a *bass*, and uniting it with the



The *second inversion* is formed by taking the fifth of the bass or grave sound of a triad as a bass, and uniting it with the other sounds of the triad. The chord of the sixth is, therefore, a sound with its third and sixth acute sounds. The chord of the six-four is a chord with its fourth and sixth acute sounds.

ON THE CHORD OF THE SIXTH, THE FIRST INVERSION OF THE MAJOR, MINOR, AND DIMINISHED TRIAD.

MAJOR KEYS.

A chord of the sixth can be formed on any sound of the key.

Remark. In the chord of the sixth the grave sound is not usually combined with its octave; in place of it the sixth

of the grave sound can be combined with its octave : Ex. 1 ; but when the grave sound forms part of a series of sounds moving by diatonic seconds in a contrary direction to a similar series of acuter sounds, there is no objection to the grave sound being combined with its octave : Ex. 2.

Exception. If the sixth of the grave sound is the leading note, and it proceeds to the tonic, it must not be combined with its octave. In order in this case to have a fourth part, the grave sound, or the third of the chord, can be combined with their octaves : Exs. 3 and 4.

Remark. In a regular sequence of chords of $\frac{5}{3}$, three parts are only generally used : Ex. 5 ; when four parts are required, the sixth, and then the third of the chord can be combined with their octaves : Ex. 6.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5. Ex. 6.

ON THE NOTATION OF CHORDS OF THE SIXTH.

The chord of the sixth is expressed by the figures $\frac{5}{3}$, or $\frac{5}{3}$, or $\frac{5}{3}$, or 6. A 6 with a sharp, thus $\sharp 6$, means the chord of the sixth with its third a semitone higher; with a flat, thus $\flat 6$, the chord of the sixth with its third a semitone lower than the diatonic third, or third according to the notation of the key; with a natural, thus $\natural 6$, the chord of the sixth with the third natural; with a natural, thus $\natural 6$, the chord of the sixth with the sixth natural; with a flat, thus $\flat 6$, the chord of the sixth with the sixth lowered a semitone; with a stroke, thus $\overline{6}$, the chord of the sixth with the sixth raised a semitone higher than the diatonic sixth, or sixth according to the notation of the key.

ON THE PROGRESSION OF CHORDS OF $\frac{5}{3}$ IN MAJOR KEYS.

THEOREM.

The chords of $\frac{5}{3}$ can progress to triads, and to other chords of $\frac{5}{3}$; viz. to $\frac{5}{3}$ on the note above: Ex. 1; on the note below: Ex. 2; sometimes on the third above: Ex. 3; and sometimes on the same grave sound: Ex. 4; to $\frac{5}{3}$ on the note above: Ex. 5; on the note below: Ex. 6; on the fourth below: Ex. 7.

Ex. 1.

Ex. 2.

or

Ex. 5.

Ex. 6.

Ex. 7.

or

or

or

Remark 1. If required, $\frac{5}{3}$ can progress to $\frac{5}{3}$ on any sound of the key; but the above are the usual and best progressions.

Remark 2. The chord of the sixth on any given sound can be readily found by naming the triad on the diatonic third below; for example, the chord of $\frac{5}{3}$ on G in the key of C major is E, G, B.

EXERCISE.

Write diatonic triads in any major key, introducing chords of $\frac{5}{3}$.

Rule.

Let the penultimate be a triad on the dominant, or sub-dominant;* or a chord of $\frac{5}{3}$ on the supertonic, or subdominant, followed by a triad on the tonic. The two latter do not, however, form such a complete "close," or cadence.

* *Vide Remark*, page 69.

ON THE CHORDS WHICH CAN PRECEDE § IN MAJOR KEYS.

THEOREM.

§ can be preceded by a triad on any sound of the key.

Remark. Even the diminished triad on the leading note, which is restricted in its progressions to a triad, can precede § on any sound of the key, and consequently the diminished triad can progress to § on any sound of the key.



ON THE CHORD OF THE SIXTH, THE FIRST INVERSION OF THE MAJOR, MINOR, AND DIMINISHED TRIAD IN MINOR KEYS.

MINOR KEYS.

Remark. The grave sound is not usually combined with its octave; in place of it the sixth can be combined with its octave. But when the grave sound forms part of a series of sounds moving by diatonic seconds in a contrary direction to a similar series of acuter sounds, there is no objection to the grave sound being combined with its octave.

Exception. The major sixth and major seventh of minor keys can never be combined with their octaves.

ON THE PROGRESSION OF CHORDS OF § IN MINOR KEYS.

Rules.

1. The chords of § formed on and with the sounds of minor keys according to the signature, have similar progressions to the chords of § in major keys.

§ on the tonic can progress to § on the leading note, and to § on the supertonic.

§ on the supertonic can also progress to § on the same grave sound.

§ on the mediant can also progress to a triad with a raised major third on the subdominant; to § on the supertonic, and to a sixth with raised major third on the subdominant; also to § on the leading note.

2. The chord of the major sixth on the tonic of minor keys can progress to the chord of the major sixth on the supertonic: Ex. 1.

3. The chord of the major sixth on the supertonic can progress to $\frac{5}{3}$ on the mediant: Ex. 2; also to a major and minor sixth on the tonic: Exs. 3 and 4; and to $\frac{5}{3}$ on the superdominant: Ex. 5.

4. The chord of the sixth with a raised major third on the subdominant can progress to a triad with a raised major third on the dominant: Ex. 6.

5. The chord of $\frac{5}{3}$ on the major sixth of the key can progress to $\frac{5}{3}$ and $\frac{5}{3}$ on the leading note: Exs. 7 and 8.

6. The chord of $\frac{5}{3}$ on the leading note can progress to $\frac{5}{3}$ on the tonic: Ex. 9; and to $\frac{5}{3}$ on the superdominant: Ex. 10; and major sixth of the key: Ex. 11; also to the chord of the minor and major sixth on the tonic: Exs. 12 and 13.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5. Ex. 6.

Ex. 7. Ex. 8. Ex. 9. Ex. 10. Ex. 11. Ex. 12. Ex. 13.

General Rule for all Minor Keys.

Whenever the major sixth is used in any minor key, it must be followed by the major seventh.*

Remark. Attend to *Rule 2*, page 71; and in order to give tonality, use but seldom the sound the minor seventh of the key; let it not be used near the commencement or end.

* *Vide Rule* for the progression of sounds, page 45.

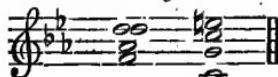
EXERCISE.

Write diatonic triads in any minor key, introducing the chords of the sixth.

Rule.

Let the penultimate be the major triad on the dominant, or minor triad on the subdominant; or a chord of $\frac{5}{3}$ on the supertonic; or $\frac{5}{3}$ on the subdominant, followed by a triad on the tonic. The two latter do not, however, form such a complete "close" or cadence.

Remark. After $\frac{5}{3}$ on the subdominant as a penultimate, the final triad is often made major.



ON THE CHORDS WHICH CAN PRECEDE THE CHORDS OF $\frac{5}{3}$
IN MINOR KEYS.

THEOREM I.

The chords of $\frac{5}{3}$ formed on the sounds and with the sounds of the key according to the signature, can be preceded by a triad on any sound of the key according to the signature.

THEOREM II.

The chords of the sixth formed on, or containing the major sixth of the key, should generally progress from a chord which admits of the major sixth progressing from the fifth of the key: thus, $\frac{5}{3}$ on the tonic is best preceded by $\frac{5}{3}$ on the same grave sound.

THEOREM III.

The chords of the sixth formed on, or with the leading note, are best preceded by a triad or chord of $\frac{5}{3}$ which either prepares the leading note, or permits of it proceeding from its nearest diatonic. The following progression, however, is allowed.



ON THE CHORD OF $\frac{6}{4}$, THE SECOND INVERSION OF THE
MAJOR, MINOR, AND DIMINISHED TRIAD, IN MAJOR KEYS.

MAJOR KEYS.

THEOREM.

A chord of six-four can be formed on any sound of the key; it is principally used on the dominant.

Remark. The grave sound may be combined with its octave, when the chord progresses to $\frac{5}{3}$ on the same grave sound: Ex. 1; and when the bass forms part of a series of sounds moving by diatonic intervals of seconds in a contrary direction to a similar series of acuter sounds: Ex. 2. The sixth and the fourth are occasionally combined with their octaves, when many parts are required, and a good progression can be found for all the sounds: Exs. 3 and 4.

Ex. 1.

Ex. 2.

Ex. 3.

Ex. 4.

When the grave sound is the leading note, and it progresses to $\frac{5}{3}$ on the tonic, it cannot be combined with its octave. When the grave sound is the subdominant, and it progresses to $\frac{5}{3}$ on the note below, or $\frac{6}{4}$ on the note above, the octave is not generally added.

ON THE NOTATION OF THE CHORD OF THE $\frac{6}{4}$.

The chord of the six-four is expressed by the figures $\frac{8}{4}$, or $\frac{6}{4}$. As a general rule, it should be observed that, a stroke through, or a sharp placed before a figure, raises the sound indicated a semitone higher than it would be otherwise; a flat placed before a figure lowers it a semitone; a natural placed before a figure expresses that the sound indicated by the figure is to be made natural, i. e. deprived of the flat or sharp it possesses according to the notation or signature of

the key; its effect, therefore, is sometimes to raise, and sometimes to lower a sound.

ON THE PROGRESSION OF $\frac{6}{4}$ IN MAJOR KEYS TO ANOTHER CHORD IN THE SAME KEY.

Rules.

1. The chord of $\frac{6}{4}$ can progress to $\frac{5}{3}$ on the same grave sound: Ex. 1; and on the note below: Ex. 2.

Exception. $\frac{6}{4}$ on the subdominant and leading note of major keys does not progress well to $\frac{5}{3}$ on the same grave sound. The progression is, however, occasionally used.

Remark. When $\frac{6}{4}$ progresses to $\frac{5}{3}$ on the same grave sound, the sixth should progress to the fifth of the bass, and the fourth to the third: *vide* Ex. 1.

2. $\frac{6}{4}$ on the leading note can progress to $\frac{5}{3}$ on the tonic: Ex. 3.

3. $\frac{6}{4}$ can progress to $\frac{5}{3}$ on its nearest grave and acute diatonics: Exs. 4 and 5.

Ex. 1. Ex. 2. Ex. 3.

The musical examples consist of five staves of music in common time with a treble clef.
 - Ex. 1: Shows a progression from $\frac{6}{4}$ to $\frac{5}{3}$ on the same note (grave sound). The bass line shows a change from $\frac{6}{4}$ to $\frac{5}{3}$.
 - Ex. 2: Shows a progression from $\frac{6}{4}$ to $\frac{5}{3}$ on a note below. The bass line shows a change from $\frac{6}{4}$ to $\frac{5}{3}$.
 - Ex. 3: Shows a progression from $\frac{6}{4}$ on the leading note to $\frac{5}{3}$ on the tonic. The bass line shows a change from $\frac{6}{4}$ to $\frac{5}{3}$.
 - Ex. 4: Shows a progression from $\frac{6}{4}$ to $\frac{5}{3}$ on its nearest grave diatonic. The bass line shows a change from $\frac{6}{4}$ to $\frac{5}{3}$.
 - Ex. 5: Shows a progression from $\frac{6}{4}$ to $\frac{5}{3}$ on its nearest acute diatonic. The bass line shows a change from $\frac{6}{4}$ to $\frac{5}{3}$.

Ex. 4.

Ex. 5.

4. $\frac{6}{4}$ can progress to $\frac{5}{3}$ on its nearest grave and acute diatonics.

A staff of music in common time with a treble clef, showing a progression from $\frac{6}{4}$ to $\frac{5}{3}$ on its nearest grave and acute diatonics. The bass line shows a change from $\frac{6}{4}$ to $\frac{5}{3}$.

Remark. An ordinary cadence is made with $\frac{6}{4}$ as an antepenultimate, and $\frac{5}{3}$ as a penultimate on the dominant, thus:

A staff of music in common time with a treble clef, showing an ordinary cadence with $\frac{6}{4}$ as an antepenultimate and $\frac{5}{3}$ as a penultimate on the dominant. The bass line shows a change from $\frac{6}{4}$ to $\frac{5}{3}$.

EXERCISE.

Write triads in any major key, introducing the two inversions.

ON THE CHORDS WHICH CAN PRECEDE $\frac{6}{4}$ IN MAJOR KEYS.*Rules.*

1. The chords of $\frac{6}{4}$ can generally be preceded by $\frac{5}{3}$ on any sound of the scale; but the diminished triad on the leading note should only precede $\frac{6}{4}$ on the tonic, superdominant, and mediant.



2. The chords of $\frac{6}{4}$ can be preceded by $\frac{5}{3}$ on their nearest grave and acute diatonics.

ON THE CHORD OF $\frac{6}{4}$, THE SECOND INVERSION OF THE MAJOR, MINOR, AND DIMINISHED TRIAD, IN MINOR KEYS.

MINOR KEYS.

THEOREM.

A chord of $\frac{6}{4}$ can be formed on any sound of a minor key. It is principally used on the dominant.

Rule.

The grave sound may be combined with its octave when the chord progresses to a triad on the same grave sound; and when the bass forms part of a series of sounds moving by diatonic intervals of seconds; in contrary direction to a similar series of acuter sounds. The sixth and the fourth

are occasionally combined with their octaves, when many parts are required, and a good progression can be found for all the sounds.

Exception. The major sixth and major seventh of the key can never be combined with their octaves.

ON THE PROGRESSION OF $\frac{5}{4}$ IN MINOR KEYS TO OTHER CHORDS IN THE SAME KEY.

Rules.

1. The chords of $\frac{5}{4}$ formed on and with the sounds of minor keys according to the signature, have similar progressions to the chords of $\frac{5}{4}$ in major keys.

$\frac{5}{4}$ on the supertonic can also progress to $\frac{5}{4}$ on the same grave sound ; and to $\frac{5}{4}$ on the mediant.

$\frac{5}{4}$ on the subdominant can also progress to $\frac{5}{4}$ on the same grave sound.

$\frac{5}{4}$ on the dominant can also progress to a triad with a raised third on the same grave sound ; and to $\frac{5}{4}$ on the major sixth of the key.

2. The chord of $\frac{5}{4}$ on the tonic can progress to $\frac{5}{4}$ on the supertonic.

3. The chord of $\frac{5}{4}$ on the supertonic can progress to $\frac{5}{3}$ on its nearest grave and acute diatonics.

4. The chord of $\frac{5}{4}$ on the mediant can progress to $\frac{5}{3}$ on the supertonic.

5. $\frac{5}{4}$ on the subdominant can progress to $\frac{5}{3}$ on the mediant ; and to $\frac{5}{4}$ on the dominant.

6. $\frac{5}{4}$ on the major sixth of the key can progress to $\frac{5}{3}$ and $\frac{5}{2}$ on the leading note.

EXERCISE.

Write triads in any minor key, introducing the two inversions.

Use $\frac{5}{4}$ on the dominant as the antepenultimate, a triad

with a raised major third as the penultimate, followed by a triad on the tonic as a final chord.



ON THE CHORDS WHICH CAN PRECEDE SIX-FOUR
IN MINOR KEYS.

Rules.

1. The chord of six-four formed on and with the sounds of minor keys according to the signature of minor keys, can be preceded by triads and chords of the sixth similar to those in their respective major keys.
2. The chords of six-four formed on and with the major sixth of the key, should be preceded by some chord which allows the major sixth to proceed from the perfect fifth of the key, thus :

- $\frac{5}{4}$ on the tonic is best preceded by $\frac{3}{2}$ on the tonic.
- $\frac{6}{4}$ on the mediant by $\frac{5}{3}$ or $\frac{6}{3}$ on the same grave sound.
- $\frac{6}{4}$ on the major sixth of the key by $\frac{4}{3}$ on the dominant.

3. The chords of six-four formed on and with the major seventh of the key, are generally best preceded by chords which either prepare the leading note, or allow of it proceeding from its nearest diatonic. The following, however, is occasionally allowed :



CHAPTER XXV.

DIVISION VII.

ON THE CONSONANT HARMONY OF THREE SOUNDS, FORMING AUGMENTED TRIADS,* IN MAJOR AND MINOR KEYS.

THEOREM.

Upon every sound upon which a major triad can be placed, may also be placed an augmented triad, provided the key admits of the introduction of an augmented fifth, without enharmonically changing the diatonic sounds of the key. For example: in the key of C major, the augmented triad, G, B, D sharp, can be taken; but in the key of C minor, it cannot be taken, because D sharp cannot be used without enharmonically changing E flat, the diatonic sound of the key.

Rules.

1. The augmented fifth cannot be combined with its octave; the other sounds of the chord can be combined with their octaves.
2. The augmented fifth should proceed from its nearest diatonic.
3. The progression of the augmented fifth should be to its nearest acute diatonic, so that some combination must follow which permits the augmented fifth so to progress.

EXERCISE.

Write triads in the major and minor keys, introducing the augmented triads.

ON THE PROGRESSION OF THE AUGMENTED TRIADS IN MAJOR AND MINOR KEYS.

Rule.

\S generally progresses to \S on the fourth above according

* *Vide* Definition 4, page 65.

to the signature ; or to $\frac{5}{3}$ on the third below according to the signature.

The image shows two staves of musical notation. The left staff, labeled "Key of C major.", contains three chords: a C major chord (root position), a G major chord (first inversion), and a C major chord (root position). The right staff, labeled "Key of C minor.", contains three chords: an A minor chord (root position), a D minor chord (root position), and an F# minor chord (root position). Both staves use a common time signature and have a bass clef. The bass notes are marked with a '5' under each staff.

ON THE CHORDS WHICH CAN PRECEDE THE AUGMENTED TRIADS
IN MAJOR AND MINOR KEYS.

Rules.

1. The augmented triads can be preceded by chords of $\frac{5}{3}$ on the same grave sound and on the fourth above; and by $\frac{5}{3}$ on the same grave sound.
 2. The augmented triad on the mediant in minor keys can be preceded by $\frac{4}{3}$ on the supertonic.
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CHAPTER XXVI.

DIVISION VIII.

ON THE CONSONANT HARMONY OF THREE SOUNDS, FORMING
CHORDS, INVERSIONS OF AUGMENTED TRIADS.

ON THE CHORD OF THE SIXTH, THE FIRST INVERSION
OF THE AUGMENTED TRIAD.

THEOREM.

Chords of $\frac{6}{5}$, i. e. chords of the sixth with raised major thirds, inversions of the augmented triads, can be formed only on the mediant, superdominant, and leading note, of major keys; and on the dominant, tonic, and supertonic, of minor keys.

Rule.

The sixth is the only sound that can be combined with its octave. The raised third must proceed from its nearest diatonic, and progress to its nearest acute diatonic.

EXERCISE.

Write triads in the major and minor keys, introducing the augmented triads and the first inversion.

ON THE PROGRESSION OF THE CHORD OF THE SIXTH, THE FIRST INVERSION OF THE AUGMENTED TRIAD.

Rule.

The chord of $\frac{6}{4}$, the first inversion of an augmented triad, usually progresses to $\frac{5}{3}$ on its nearest acute diatonic : Exs. 1 and 2; sometimes to $\frac{6}{4}$ on the diatonic third below : Ex. 3; and to $\frac{6}{4}$ on the same grave sound : Ex. 4.

Ex. 1.

Ex. 2.

Ex. 3.

Ex. 4.

Key of C minor.

ON THE CHORDS WHICH CAN PRECEDE THE FIRST INVERSION OF AUGMENTED TRIADS.

Some chord must precede the chord of the sixth with a raised third, which allows of the raised interval proceeding from its nearest diatonic.

The chord of the sixth with a raised major third, can be well preceded by $\frac{5}{3}$ on the note above, third above, and third below; it can also be preceded by $\frac{6}{4}$ on the same grave sound; and the sixth with a raised major third on the dominant in minor keys, can be preceded by $\frac{5}{3}$ on the tonic.

Ex. 5.

Ex. 5.

The chord of the sixth with a raised major third, can also be well preceded by $\frac{6}{4}$ on the same grave sound.

ON THE CHORD OF $\frac{6}{4}$, THE SECOND INVERSION OF THE AUGMENTED TRIAD IN MAJOR AND MINOR KEYS.

THEOREM.

$\frac{6}{4}$, the second inversion of an augmented triad, can only be formed on the chromatic fifth of the tonic, the chromatic fifth of the subdominant, and the chromatic fifth of the dominant in major keys; and on the leading note, chromatic major third, and chromatic augmented fourth of minor keys.

Rules.

1. The grave sound cannot be combined with its octave. The other sounds of the chord may be combined with their octaves, if a good progression for them can be found.

2. The grave sound must proceed from its nearest diatonic, and progress to its nearest acute diatonic.

EXERCISE.

Write triads in the major and minor keys, introducing the two inversions of the augmented triads.

ON THE PROGRESSION OF $\frac{6}{4}$, THE SECOND INVERSION OF THE AUGMENTED TRIAD, TO ANOTHER CHORD IN THE SAME KEY.

THEOREM.

$\frac{6}{4}$, the second inversion of the augmented triad, can progress to $\frac{5}{3}$ on its nearest acute diatonic : Exs. 1 and 2 ; also to $\frac{5}{3}$ on its nearest acute diatonic : Exs. 3 and 4.

Ex. 1.

Ex. 2.

Ex. 3.

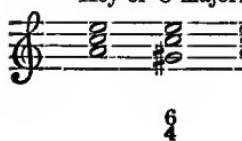
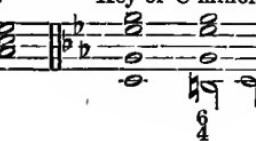
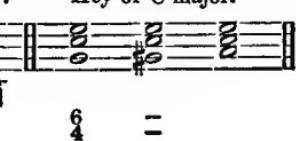
Ex. 4.

Key of C major. Key of C minor.

ON THE CHORDS WHICH CAN PRECEDE SIX-FOUR, THE
SECOND INVERSION OF AN AUGMENTED TRIAD.

THEOREM.

Some chord must precede the chord of six-four, which permits of the grave sound proceeding from its nearest diatonic; it is best preceded by $\frac{5}{3}$ on its nearest acute diatonic: Exs. 1 and 2; or $\frac{4}{3}$ on its nearest grave diatonic: Ex. 3.

Ex. 1. Key of C major.	Ex. 2. Key of C minor.	Ex. 3. Key of C major.
		
$\frac{5}{3}$	$\frac{5}{3}$	$\frac{4}{3}$

CHAPTER XXVII.

DIVISION IX.

ON THE DISSONANT HARMONY OF THREE DIATONIC SOUNDS,
FORMING SUSPENSIONS OF TRIADS.

DEFINITIONS.

A *chord of suspension* is a chord in which one or more of the sounds of the previous chord is retained in place of *one or more* of its own.

A *simple chord of suspension* is a chord in which only *one* sound of the preceding chord is retained in place of *one* of its own.

A *compound chord of suspension* is a chord in which *two or more* of the preceding sounds are retained in place of *two or more* of its own sounds.

THEOREM.

One or more sounds of a triad, as also the inversions of a triad, can be suspended—*i. e.* one or more of the sounds of the previous chord can be retained in place of one or more of

its own—forming combinations named after the figures which indicate the intervals at which the sounds are placed from the gravest.

THE SUSPENSIONS OF A TRIAD.

The suspensions of a triad are called chords of

$\frac{5}{4}$, or $\frac{8}{4}$, abbreviated to 4.

$\frac{9}{3}$, abbreviated to $\frac{9}{5}$, $\frac{9}{3}$, or 9.

$\frac{9}{4}$, abbreviated to $\frac{9}{4}$.

$\frac{4}{2}$, abbreviated to 2.

$\frac{6}{3}$, or $\frac{8}{3}$, abbreviated to 6.

$\frac{6}{4}$, or $\frac{8}{4}$.

$\frac{9}{3}$, abbreviated to $\frac{9}{3}$.

$\frac{9}{4}$, not abbreviated.

DEFINITIONS.

The chord $\frac{8}{4}$ differs from the triad $\frac{8}{3}$, which it suspends, in having a sound at the interval of a fourth instead of a third. Ex. 1.

The chord $\frac{9}{3}$ differs from the triad $\frac{8}{3}$, which it suspends, in having a sound at the interval of a ninth instead of an eighth. Ex. 2.

The chord $\frac{9}{4}$ differs from the triad $\frac{8}{3}$, which it suspends, in having sounds at intervals of a ninth and fourth instead of an eighth and third. Ex. 3.

The chord $\frac{2}{3}$ is a sound with its second and fourth diatonic sounds; the grave sound suspends the sound which, with the other two, form a triad. Ex. 4.

The chord $\frac{8}{3}$ differs from the triad $\frac{8}{3}$, which it suspends, in having a sound at the interval of a sixth instead of a fifth. Ex. 5.

Remark. The figures $\frac{8}{3}$, or $\frac{8}{2}$, or 6, primarily express the first inversion of a triad, which it may precede or follow on the same grave sound, and needs no preparation or resolution. The same figures express, also, a suspension of $\frac{8}{3}$, when the sixth suspends, by preparation, the fifth of the triad. When $\frac{8}{3}$ is a suspension of $\frac{8}{2}$ it should be described as such, in order to distinguish it from the inversion of the same chord.

The chord $\frac{8}{4}$ differs from $\frac{8}{3}$, which it suspends, in having sounds at intervals of a sixth and fourth instead of a fifth and third. Ex. 6.

Remark. The figures $\frac{8}{4}$ express primarily the second inversion of the triad, which it may precede or follow on the same grave sound, and needs no preparation or resolution. The same figures express, also, a suspension of $\frac{8}{3}$, when the sixth and fourth suspend, by preparation, the fifth and third of the triad. When $\frac{8}{4}$ is a suspension of $\frac{8}{2}$, it should be described as such, to distinguish it from the inversion of the same chord.

The chord $\frac{9}{4}$ differs from the $\frac{8}{3}$, which it suspends, in having sounds at the intervals of a ninth and sixth instead of an eighth and fifth. Ex. 7.

Remark. The figures $\frac{9}{4}$ also express another kind of suspension (*vide* suspensions of the first inversion of a triad), but they also express a suspension of $\frac{8}{3}$, when the ninth and sixth suspend, by preparation, the eighth and fifth. When $\frac{9}{4}$ is a suspension of $\frac{8}{2}$, it should be described as such, in order to distinguish it from the suspension of $\frac{8}{3}$.

The chord $\frac{9}{4}$ is a sound with its fourth, sixth, and ninth suspending the third, fifth, and eighth of the triad.

Remark. The figures $\frac{9}{2}$ also express another kind of

suspension (*vide* Suspensions of the Second Inversion of a Triad), in which neither the sixth or fourth require preparation or resolution; they express a suspension of $\frac{5}{3}$ only when the ninth, sixth, and fourth suspend, by preparation, the eighth, fifth, and third. This suspension should be described as $\frac{9}{4}$, the suspension of $\frac{5}{3}$.

Examples of the suspensions of triads properly prepared and resolved.

Ex. 1.

Ex. 2.

Ex. 3.

Ex. 4.

Ex. 5.

Ex. 6.

Ex. 7.

Ex. 8.

THEOREM.

Upon every sound of the key any suspension of a triad may be formed, provided the suspended sound conforms to the following rules.

RULES FOR THE SUSPENSIONS OF TRIADS.

Rule 1. Every sound used as a suspension must be properly prepared, *i. e.* the sound retained must occupy the same position in the chord of suspension as it did in the chord from which it is retained.

Remark. In the following examples the second combination of each is the chord of $\frac{5}{3}$. In the first example the

retained sound C occupies the same position in the chord of suspension $\frac{5}{4}$, as it does in the chord which precedes it, viz. the acutest but one in both; the suspension is therefore properly prepared. In the second example the retained sound occupies the acutest but one in the chord of suspension $\frac{5}{4}$, and the acutest in the chord from which it is retained; the suspension is therefore not prepared in the same part, and is faulty.

Ex. 1. Good.	Ex. 2. Bad.

Rule 2. Every sound used as a suspension must be resolved, *i. e.* must progress to the sound which it suspended.

Remark. In the following examples the second combination is the chord of $\frac{5}{4}$. In each the suspended chord is followed by the triad which it has suspended, but in the first the retained sound progresses to the sound which it suspended; it is therefore properly resolved, whilst in the second it progresses to one of the other sounds of the triad; it is therefore not properly resolved.

Ex. 1. Good.	Ex. 2. Bad.
 4 5 3	 4 5 3

Corollary. From the two foregoing rules it is evident no chord of suspension can commence or finish a *series of combined sounds*.

Remark 1. The chord of suspension should in general be followed by the *chord* it has suspended on the same *grave sound*; but composers occasionally only resolve the *retained sound*, and allow the chord of suspension to progress to some other sound, instead of to the chord it has suspended. In

Examples 1 and 3 is seen the usual progression of the chord of suspension $\frac{5}{4}$, $\frac{9}{3}$; in Examples 2 and 4 the exceptional progression.

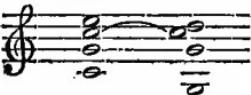
Ex. 1. Ex. 2. Ex. 3. Ex. 4.

$\frac{5}{4} \frac{9}{3}$ $\frac{5}{4} \frac{9}{3}$ 9 8 $\frac{9}{3} \frac{9}{3}$

Remark 2. In a series of combined sounds the suspensions need not always be in the same part. Example of a suspension, first, in the acute part; secondly, in the acutest but one; thirdly, in the grave part.



Remark 3. The retained sound is usually preserved without repetition; *i. e.* it is usually a tied note. Example in which C, the retained sound, is tied to the C of the chord of suspension.



Rule 3. The suspensions or retained sounds cannot be combined with their octaves.

Remark. It is not that the octaves of the retained sounds are objectionable in the combination, but that as the octaves, if added, must progress like the retained sounds, forbidden consecutive octaves result from the addition.

Rule 4. The suspension cannot be combined with the sound suspended, or with any of the octaves of the suspended sound.

Exception. The suspension of the ninth can only occur by one of the *octaves* of the *sound suspended* being combined with the suspension. In this suspension, therefore, one of the *grave octaves* of the suspended sound must be combined with the suspension; but the *sound suspended* cannot be used with the suspension.



Rule 5. The suspension of the ninth cannot be prepared by the interval of an eighth, in consequence of the effect of

consecutive octaves being produced.



Rule 6. In a "close," when the leading note is prevented progressing to the tonic on account of the latter being suspended, it may progress to the dominant. Ex.



EXERCISE.

Write a succession of triads and their inversions, introducing one or more of the suspensions of the triad.

CHAPTER XXVIII.

DIVISION X.

ON THE DISSONANT HARMONY OF THREE DIATONIC SOUNDS,
FORMING CHORDS, SUSPENSIONS OF THE
INVERSIONS OF TRIADS.

THE SUSPENSIONS OF THE CHORD OF THE SIXTH.

The suspensions of the chord of the sixth are called chords of $\frac{7}{3}$, or $\frac{8}{3}$, abbreviated to 7.
 $\frac{9}{3}$, abbreviated to 8.
 $\frac{9}{3}$, abbreviated to 9.
 $\frac{5}{3}$, not abbreviated.

Also the chords of

$\frac{6}{4}$, or $\frac{8}{4}$.

$\frac{7}{4}$, or $\frac{8}{4}$.

$\frac{9}{4}$, not abbreviated.

$\frac{9}{4}$, not abbreviated.

DEFINITIONS.

The chord $\frac{8}{3}$ differs from the chord of the sixth, in having a sound at the interval of a seventh instead of a sixth. Ex. 1.

The chord $\frac{9}{3}$ differs from the chord of the sixth, in having a sound at the interval of a ninth instead of the added eighth. Ex. 2.

The chord $\frac{9}{3}$ differs from the chord of the sixth, in having one sound at the interval of a ninth instead of an added eighth, and another at the interval of a seventh instead of a sixth. Ex. 3.

The chord $\frac{5}{3}$ is a sound with its second and fifth diatonic sounds. The grave sound suspends the sound which with the other two form the chord of the sixth.

The chord $\frac{8}{4}$ differs from the chord of the sixth, in having a sound at the interval of a fourth in place of a third. Ex. 5.

Remark. The figures $\frac{8}{4}$ express primarily the second inversion of the triad (*vide Remark, Definitions of Suspensions of Triads*). The same figures express, also, a suspension of $\frac{5}{3}$, when the fourth suspends, by preparation, the third of that chord. This suspension should be described as $\frac{8}{4}$, suspension of $\frac{5}{3}$.

The chord $\frac{8}{4}$ differs from the chord of the sixth, in having one sound at the interval of a seventh instead of a sixth, and another at the interval of a fourth instead of a third. Ex. 6.

Remark. The figures $\frac{9}{4}$ express another kind of combination; they express, also, the suspension of $\frac{8}{3}$, when the intervals of the seventh and fourth suspend, by preparation, and resolve to, the intervals of the sixth and third. This suspension should be described as $\frac{8}{4}$, the suspension of $\frac{8}{3}$.

The chord $\frac{9}{4}$ differs from the chord of the sixth, in having one sound at the interval of a ninth in place of an eighth, and another at the interval of a fourth in place of a third. Ex. 7.

Remark. The figures $\frac{9}{4}$ also describe another kind of suspension; they express, also, a suspension of $\frac{8}{3}$, when the intervals of the ninth and fourth suspend, by preparation, and resolve to, the intervals of the eighth and third.

The chord $\frac{9}{4}$ is a sound with its fourth, seventh, and ninth, suspending the intervals forming the chord of the sixth, viz. an eighth, sixth, and third. Ex. 8.

Remark. The figures $\frac{9}{4}$ express another combination, also another kind of suspension; they express, also, a suspension of $\frac{8}{3}$, when the intervals of a ninth, seventh, and fourth suspend, by preparation, and resolve to, the intervals of an eighth, sixth, and third.

Examples of the suspensions of the chord of the sixth properly prepared and resolved.

Ex. 1.

Ex. 2.

Ex. 3.

Ex. 4.

Ex. 5.

Ex. 6.

Ex. 7.

Ex. 8.

THEOREM.

Upon every sound of the key a suspension of the chord of the sixth can be formed, provided the suspension is properly prepared and resolved, and the other rules laid down for the suspension of triads are observed.

N.B.—The remarks on the suspensions of triads apply also to the suspensions of the chord of the sixth.

EXERCISE.

Write a succession of triads and their inversions, introducing one or more suspensions of the chord of the sixth.

THE SUSPENSIONS OF THE CHORD $\frac{8}{4}$.

The suspensions of the chord $\frac{6}{4}$ are called chords of

$\frac{8}{4}$ or $\frac{7}{4}$; $\frac{9}{4}$; $\frac{2}{4}$.

$\frac{8}{5}$ or $\frac{6}{5}$; $\frac{8}{5}$ or $\frac{7}{5}$; $\frac{9}{5}$; $\frac{2}{5}$.

DEFINITIONS.

The chord $\frac{8}{4}$ differs from the $\frac{6}{4}$, in having a sound at the interval of a seventh instead of a sixth. Ex. 1.

Remark. The figures $\frac{8}{4}$ express also a suspension of $\frac{8}{3}$, in which case it is a compound suspension; but as a suspension of $\frac{8}{4}$, it is a simple suspension, viz. a suspension of the sixth by the seventh.

The chord $\frac{8}{4}$ differs from the chord $\frac{8}{4}$, in having a sound at the interval of a ninth in place of the added eighth. Ex. 2.

Remark. The figures $\frac{9}{4}$ express also a suspension of $\frac{9}{3}$ and $\frac{8}{3}$, in both which cases it is a compound suspension; but as a suspension of $\frac{9}{4}$ it is a single suspension, viz. a suspension of the eighth by a ninth.

The chord $\frac{9}{4}$ differs from the chord $\frac{8}{4}$, in having one sound at the interval of a seventh in place of a sixth, and another at the interval of a ninth in place of an added eighth. Ex. 3.

Remark. The figures $\frac{9}{4}$ express also a suspension of $\frac{8}{3}$, in which case three intervals are suspended; but as a suspension of $\frac{9}{4}$ only the eighth and sixth of the chord are suspended.

The chord $\frac{8}{5}$ differs from the chord $\frac{8}{4}$, in having a sound at the interval of a fifth instead of a fourth. Ex. 4.

Remark. The figures $\frac{8}{5}$ express also another kind of chord (*vide* Inversions of the Seventh) which needs no preparation; the same figures, however, express a suspension of $\frac{8}{4}$, when the fifth suspends, by preparation, the fourth of the chord $\frac{8}{4}$.

The chord $\frac{7}{5}$ is a sound with its fifth and seventh, suspending the fourth and sixth of the chord $\frac{8}{4}$. Ex. 5.

Remark. The figures $\frac{8}{5}$ or $\frac{7}{5}$, express also another combination (*vide* the Chord of the Seventh) which needs no preparation; the same figures, however, express a suspension of $\frac{8}{4}$, when the intervals of a fifth and seventh suspend, by preparation, the fourth and sixth of the chord $\frac{8}{4}$.

The chord $\frac{8}{5}$ is a sound with its fifth, sixth, and ninth, suspending the fourth, sixth, and added eighth of the chord $\frac{8}{4}$. Ex. 6.

The chord $\frac{9}{5}$ is a sound with its fifth, seventh, and ninth, suspending the fourth, sixth, and added eighth of the chord $\frac{8}{4}$. Ex. 7.

Remark. The figures $\frac{9}{4}$ express also another combination (*vide* Chords of the Ninth) which needs no preparation; they express, however, a suspension of $\frac{8}{4}$, when the intervals of a fifth, seventh, and ninth suspend, by preparation, the fourth, sixth, and added eighth of the chord $\frac{8}{4}$.

Examples of the suspensions of the chord $\frac{8}{4}$ properly prepared and resolved.

Ex. 1.

Ex. 2.

Ex. 3.

Ex. 4.

Musical score showing four examples (Ex. 1-4) of suspensions of the chord $\frac{8}{4}$. Each example consists of two staves. The top staff shows a treble clef and a bass clef. The bottom staff shows a bass clef. The chords are indicated by Roman numerals below the notes. In Ex. 1, the first measure shows a suspension of the 4th (F#) over the 3rd (E). In Ex. 2, the first measure shows a suspension of the 4th (F#) over the 3rd (E). In Ex. 3, the first measure shows a suspension of the 4th (F#) over the 3rd (E). In Ex. 4, the first measure shows a suspension of the 4th (F#) over the 3rd (E).

Ex. 5.

Ex. 6.

Ex. 7.

Musical score showing three examples (Ex. 5-7) of suspensions of the chord $\frac{8}{4}$. Each example consists of two staves. The top staff shows a treble clef and a bass clef. The bottom staff shows a bass clef. The chords are indicated by Roman numerals below the notes. In Ex. 5, the first measure shows a suspension of the 4th (F#) over the 3rd (E). In Ex. 6, the first measure shows a suspension of the 4th (F#) over the 3rd (E). In Ex. 7, the first measure shows a suspension of the 4th (F#) over the 3rd (E).

THEOREM.

Upon any sound of the key any suspension of the chord of $\frac{8}{4}$ may be formed, provided the suspension is properly prepared and resolved, and the other rules laid down for the suspensions of triads are observed.

N.B.—The remarks on the suspensions of triads apply also to the suspensions of the chord $\frac{8}{4}$.

EXERCISE.

Write a succession of triads, their inversions and suspensions, introducing one or more suspensions of the chord $\frac{8}{4}$.

CHAPTER XXVIII (a).

DIVISION VII.

ON THE SUSPENSIONS OF TRIADS, AND THEIR INVERSIONS,
IN MINOR KEYS.*Rules.*

1. Triads formed on, as well as triads formed with the sounds of minor keys according to the signature, can be suspended like triads in major keys.
2. Triads formed on, as well as triads formed with the sound a major sixth of the key, are not usually suspended.
3. The major triad on the dominant can be suspended like the triad on the dominant in major keys.
4. The diminished triad on the leading note of minor keys can be suspended by $\frac{5}{4}$ or $\frac{6}{5}$.
- $\frac{4}{3}$ on the tonic also suspends the diminished triad on the leading note.

EXERCISE.

Write triads, and the suspensions of triads in any minor key.

ON THE SUSPENSIONS OF CHORDS OF SIX-THREE IN MINOR KEYS.

Rules.

1. Chords of $\frac{5}{3}$ formed on and with the sounds of minor keys according to the signature, can be suspended like $\frac{5}{3}$ in major keys.
2. The chord of $\frac{5}{3}$ formed on the major sixth of the key, and $\frac{5}{3}$ formed with the sound the major sixth of the key, are not suspended.

3. $\frac{5}{2}$ on the supertonic can be suspended like $\frac{5}{2}$ on the supertonic.

4. $\frac{5}{2}$ on the leading note can be suspended by $\frac{7}{4}$, $\frac{6}{4}$, and $\frac{7}{4}$.
 $\frac{5}{2}$ on the tonic also suspends $\frac{5}{2}$ on the leading note.

EXERCISE.

Write triads, and chords of $\frac{5}{2}$, in any minor key, introducing the suspensions.

ON THE SUSPENSION OF $\frac{6}{4}$ IN MINOR KEYS.

Rules.

1. Chords of $\frac{6}{4}$ formed on and with the sounds of minor keys according to the signature, can be suspended like $\frac{6}{4}$ in major keys.

2. $\frac{6}{4}$ on the supertonic, and $\frac{6}{4}$ on the subdominant, can be suspended like $\frac{6}{4}$ on the subdominant.

3. Chords of $\frac{6}{4}$ formed on the sound the major sixth of the key, and $\frac{6}{4}$ formed with the sound the major sixth of the key, are not suspended.

EXERCISE.

Write triads, and chords of $\frac{5}{2}$ and $\frac{6}{4}$, in any minor key, introducing the suspensions.

Remark. The augmented triads and their inversions are not suspended.

P A R T III.

CHAPTER XXIX.

DIVISION XI.

ON THE DISSONANT HARMONY OF TWO DIATONIC AND ONE CHROMATIC SOUNDS, FORMING MAJOR DIMINISHED TRIADS.

DEFINITION.

A major diminished triad is a sound with its chromatic major third, and diatonic diminished fifth.

THEOREM.

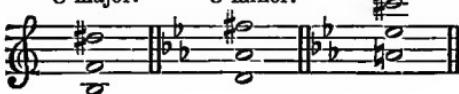
The chord of the major diminished triad is formed on the leading note in major keys, Ex. 1; and on the supertonic and major sixth in minor keys, Exs. 2 and 3.

Ex. 1. Ex. 2. Ex. 3.

C major.

C minor.

$\#$



EXERCISE IN MAJOR KEYS.

Write consonant triads, their inversions and suspensions in any major key, introducing the dissonant major diminished triad.

Rules for major keys.

1. The major diminished triad on the leading note can progress :*

1st. To a triad on the tonic, Ex. 1.

2ndly. To a triad on its acute diatonic fourth, Ex. 2.

3rdly. To the chord of the sixth on its grave diatonic third, Ex. 3.

2. The chromatic major third of the grave sound should be made by inversion an acuter sound than the diminished fifth, Ex. 4.

3. The chromatic major third of the grave sound must always proceed† from its nearest diatonic, and progress to its nearest acute diatonic sound, Ex. 5.

4. The diminished fifth of the grave sound should progress to its nearest grave diatonic sound, Ex. 6.

5. When the grave sound progresses to its acute diatonic second, the combination can only consist of three sounds, Ex. 7; but when the grave sound otherwise progresses, it can be combined with its octave, Exs. 8 and 9.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5.

The musical examples show the following progressions:

- Ex. 1:** G major triad (root position) followed by a progression where the root note G moves to the acute diatonic fourth (D), forming a D major triad.
- Ex. 2:** G major triad followed by a progression where the root note G moves to the grave diatonic third (B-flat), forming a B-flat major triad.
- Ex. 3:** G major triad followed by a progression where the root note G moves to the grave diatonic third (B-flat), forming a B-flat major triad, which then moves to the grave diatonic sixth (F-sharp).
- Ex. 4:** G major triad followed by a progression where the root note G moves to the grave diatonic fifth (E), forming an E minor triad (diminished fifth).
- Ex. 5:** G major triad followed by a progression where the root note G moves to the acute diatonic second (A), forming an A major triad.

Ex. 6. Ex. 7. Ex. 8. Ex. 9.

The musical examples show the following progressions:

- Ex. 6:** G major triad followed by a progression where the root note G moves to the acute diatonic second (A), forming an A major triad.
- Ex. 7:** G major triad followed by a progression where the root note G moves to the acute diatonic second (A), forming an A major triad, which then moves to the grave diatonic third (B-flat).
- Ex. 8:** G major triad followed by a progression where the root note G moves to the acute diatonic second (A), forming an A major triad, which then moves to the grave diatonic third (B-flat), and finally to the grave diatonic sixth (F-sharp).
- Ex. 9:** G major triad followed by a progression where the root note G moves to the acute diatonic second (A), forming an A major triad, which then moves to the grave diatonic third (B-flat), and finally to the grave diatonic sixth (F-sharp), with the notes G and F-sharp being octaves of each other.

EXERCISE IN MINOR KEYS.

Write consonant triads, their inversions and suspensions

* Any chord can be preceded and followed by one of its "inversions," or by the "chord of which it is an inversion," provided no awkward intervals are used in progressing from one chord to another; the rules of progression are not intended to apply to this mode of progression, but to progressions to chords which are neither "inversions," or the "root" of the chord whose progressions are being defined.

† Unless previously prepared.

in any minor key, introducing the chord of the major diminished triad on the supertonic and major sixth of the key.

Rules for minor keys.

1. The major diminished triad on the *supertonic* can progress :

Ex. 1. 1st. To a triad on its nearest acute diatonic sound,

2ndly. To a triad on its acute diatonic fourth, Ex. 2.

3rdly. To the chord of the sixth on its grave diatonic third, Exs. 3 and 4.

The major diminished triad on the *major sixth* of the key can progress to a triad on its acute major second, Ex. 5.*

2, 3, and 4. The same as in major keys.

5. When the grave sound progresses to its nearest acute diatonic sound the combination should only consist of three sounds, Ex. 1 : but when the grave sound progresses to a triad on its acute diatonic fourth, Ex. 2 ; or to the chord of the sixth on its grave diatonic third, Exs. 3 and 4 ; it can be combined with its octave.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5.

ON THE NOTATION OF THE MAJOR DIMINISHED TRIAD.

The major diminished triad is expressed by the figures $\frac{5}{8}$, $\frac{5}{4}$, or $\frac{5}{2}$, over or under the leading note in major keys, and supertonic and major sixth of minor keys. The fifth being always diatonically diminished does not require the aid of any flat; but the third being a chromatic sound requires a sharp, which is sufficient to express the chord in any major or minor key properly notated.

* As the major sixth of the minor key is only used when followed by the major seventh, the progression of the major diminished triad upon it is limited to a triad on the leading note, except it is used as a modulating chord.

CHAPTER XXX.

DIVISION XI.

ON THE DISSONANT HARMONY OF TWO DIATONIC AND ONE CHROMATIC SOUNDS, FORMING CHORDS, INVERSIONS OF THE MAJOR DIMINISHED TRIADS.

THEOREM I.

The major diminished triad has two inversions; viz. the chord of the minor sixth and diminished third, and the chord of the augmented sixth and augmented fourth.

DEFINITION.

The chord of the sixth, the first inversion of the major diminished triad, is a sound with its diminished third and minor sixth; it is formed, like the first inversion of other kinds of triads, by taking the third of the grave sound of the triad as a bass (or grave sound), and uniting it with the other two sounds of the triad.

THEOREM II.

The chord of the sixth, the first inversion of the major diminished triad, can be formed in major keys only on the sound an acute chromatic major third from the leading note, Ex. 1. In minor keys it can be formed on the acute chromatic major third from the supertonic, Ex. 2; and on the acute chromatic major third of the major sixth of the key, Ex. 3.

Ex. 1. Ex. 2. Ex. 3.

C major. C minor.

EXERCISE IN MAJOR KEYS.

Write consonant triads, their inversions and suspensions

in any major key, introducing the dissonant major diminished triad and its first inversion.

Rules for major keys.

1. The chord of the sixth, the first inversion of the major diminished triad, should progress to a triad, Ex. 1; or chord of the sixth, on its nearest acute diatonic sound, Ex. 2.

Remark. The grave sound in the chord of the sixth being the chromatic major third of the chord inverted, has similar progressions; i. e. it must proceed from its nearest diatonic, and progress to its nearest acute diatonic sounds.*

2. The diminished third of the grave sound (the diminished fifth of the chord inverted) must progress to its nearest grave diatonic; Exs. 1 and 2.

3. When the sixth of the grave sound (i. e. the leading note of the key) progresses to the note above (i. e. the tonic), Ex. 2, the combination should consist of only three sounds; but when the sixth of the grave sound does not so progress, it can be combined with its octave, Ex. 1.

4. The sound called the diminished third of the grave sound should not be combined literally at that interval, but always compounded with one of its octaves, as in the Examples 1 and 2.

Remark. This last rule limits the number of positions in which the chord can be taken.

5. Neither the grave sound nor its diminished third can be combined with their octaves.

Ex. 1.	Ex. 2.

EXERCISE IN MINOR KEYS.

Write consonant triads, their inversions and suspensions in any minor key, introducing the dissonant major diminished triad and its first inversion.

* *Vide Rule 3*, page 92, and Ex. 5, page 92.

Rules for minor keys.

1. The chord of the sixth, the first inversion of the major diminished triad on the acute chromatic major third from the supertonic in minor keys, can progress to a triad, or chord of the sixth, on its nearest acute diatonic sound, Exs. 1 and 2. The chord of the sixth, the first inversion of the major diminished triad on the acute chromatic major third of the major sixth of the minor key, can progress to the chord of the sixth on its nearest acute diatonic, Ex. 3.

Ex. 1.

Ex. 2.

Ex. 3.

Key of C minor.

2. The diminished third (the diminished fifth of the chord inverted) must progress to its nearest grave diatonic, Exs. 1, 2, and 3.

3. The sixth of the grave sound in the chord of the sixth on the chromatic major third of the supertonic can be combined with its octave, Ex. 1; but the sixth of the grave sound in the chord of the sixth on the chromatic major third of the major sixth cannot be combined with its octave, Ex. 3.

Remark. The other sounds cannot be combined with their octaves.

4. The same as *Rule 4* in major keys.

ON THE NOTATION OF THE FIRST INVERSION OF THE CHORD
OF THE MAJOR DIMINISHED TRIAD.

The first inversion of the major diminished triad is expressed by the figures $\frac{5}{3}$, $\frac{6}{3}$, or 6. In minor keys, in expressing this inversion on the chromatic major third of the major sixth of the key, the figure 6 requires a stroke through it, in order to raise the interval of a sixth from a diminished to a minor sixth; thus 6.

ON THE CHORD OF $\frac{6}{4}$, THE SECOND INVERSION OF THE CHORD OF THE MAJOR DIMINISHED TRIAD.

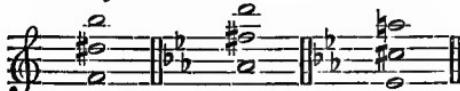
THEOREM. I.

The chord of the $\frac{6}{4}$, the second inversion of the major diminished triad, consists of a sound with its augmented fourth and augmented sixth; it is formed like the second inversion of other triads, by taking the fifth of the grave sound of the triad as a bass or grave sound, and uniting it with the other two sounds of the triad.

THEOREM II.

A chord of the $\frac{6}{4}$ of this kind can only be formed on the subdominant of major keys, and on the superdominant and mediant of minor keys. Ex.

C major. C minor. C minor.



EXERCISE IN MAJOR KEYS.

Write consonant triads, their inversions and suspensions, in any major key, introducing the dissonant major diminished triad, and its first and second inversions.

Rules for major keys.

1. The chord of the $\frac{6}{4}$, the second inversion of the major diminished triad, can progress to a triad, or chord of the sixth, on its nearest grave diatonic sound, Exs. 1 and 2.
2. The chromatic augmented sixth of the grave sound (the chromatic third of the chord inverted) should progress to its nearest acute diatonic sound, Exs. 1 and 2.

Ex. 1.

Ex. 2.



3. The augmented fourth of the grave sound (the leading note of the key) can be combined with its octave, except it

progresses to the note above (i. e. the tonic), in which case it cannot be combined with its octave, Ex. 2, page 97.

Remark. The other sounds of the chord cannot be combined with their octaves.

EXERCISE IN MINOR KEYS.

Write consonant triads, their inversions and suspensions in any minor key, introducing the dissonant major diminished triad, and its first and second inversions.

Rules for minor keys.

1. The chord of the $\frac{5}{4}$, the second inversion of the major diminished triad on the *superdominant* of minor keys, should progress to a triad, Exs. 1 and 2; or chord of the sixth on its nearest grave diatonic sound, Ex. 3. The chord of the $\frac{5}{4}$ on the *mediant* of minor keys can progress to the chord of the sixth on its nearest grave diatonic, Ex. 4.

2. The chromatic augmented sixth of the grave sound must proceed from its nearest diatonic, and progress to its nearest acute diatonic, Exs. 1, 2, 3, and 4.

3. The augmented fourth of the grave sound in the chord of $\frac{5}{4}$ on the mediant, being the major sixth of the key, should progress to the major seventh of the key, Ex. 4.

4. The augmented fourth of the grave sound can be combined with its octave.

Exception. The augmented fourth in the chord of $\frac{5}{4}$ on the mediant, being the major sixth* of the key, cannot be combined with its octave.

Remark. The other sounds of the chord cannot be combined with their octaves.

Ex. 1.	Ex. 2.	Ex. 3.	Ex. 4.
 Key of C minor.	 $\frac{4}{4}$	 $\frac{4}{4}$	 $\frac{4}{4}$

* The major sixth is only used when followed by the major seventh; so that if it is combined with its octave, consecutive octaves ensue.

ON THE NOTATION OF THE SECOND INVERSION OF THE
DISSONANT MAJOR DIMINISHED TRIAD.

This inversion is expressed by the figures 6 and 4, with a stroke through the 6, thus $\frac{6}{4}$, in order to raise the interval of a sixth from the grave sound to an augmented sixth. In minor keys, when this inversion is formed on the mediant, the figure 4 requires a stroke through it, in order to raise it to an augmented fourth, thus $\frac{4}{\overline{4}}$.

CHAPTER XXXI.

DIVISION XI.

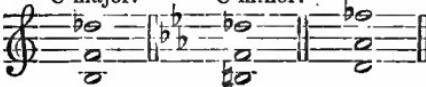
ON THE DISSONANT HARMONY OF TWO DIATONIC AND ONE CHROMATIC SOUNDS, FORMING DOUBLE DIMINISHED TRIADS.

DEFINITION.

A double diminished triad is a sound with its chromatic diminished third and diatonic diminished fifth.

THEOREM.

The chord of the double diminished triad is formed on the leading note in major and minor keys; and on the supertonic C major. C minor.

in minor keys. Ex. 

EXERCISE IN MAJOR AND MINOR KEYS.

Write consonant triads, their inversions and suspensions in any major or minor key, introducing the major diminished triad and its inversions, also the double diminished triad.

Rules for major and minor keys.

1. The chord of the double diminished triad can progress to a triad on its nearest acute diatonic sound, Exs. 1,

2, and 3; and when four parts are used, it can progress to the chord of the $\frac{5}{4}$ on its nearest acute diatonic sound, and to $\frac{5}{4}$, the suspension of $\frac{3}{2}$, Exs. 4 and 5.

2. The chromatic diminished third of the grave sound should always be used in its compound form—it should not be nearer the grave sound than a diminished tenth.

3. The chromatic diminished third of the grave sound should proceed from its nearest diatonic, and progress to its nearest grave diatonic.*

4. The diminished fifth of the grave sound, when only three parts are used, should progress to its nearest grave diatonic sound; when four parts are used (*vide Rule 5*), and the fifth is combined with its octave or unison, one sound at the interval of a diminished fifth can progress to its nearest grave diatonic, whilst the other progresses to its nearest acute diatonic, Ex. 2; or one sound can be retained, whilst the other progresses, Ex. 4.

5. In four parts, the diminished fifth of the grave sound can be combined with its octave, Ex. 4.

Remark. Neither the grave nor the chromatic sound can be combined with its octave.

Ex. 1.	Ex. 2.	Ex. 3.	Ex. 4.	Ex. 5.
C major.	C minor.			
				

ON THE NOTATION OF THE CHORD OF THE DOUBLE DIMINISHED TRIAD.

This kind of triad is expressed by \flat^5 , $\flat\flat^3$, by only a flat over the grave sound, thus \flat , or by a double flat, $\flat\flat\flat^3$. Sometimes a natural, \natural , expresses it.

* *Vide Note*, page 92. Any chord can be preceded, etc.

† The perfect fifth following the diminished fifth is allowed in the progression of this chord. It should, however, be avoided between the extreme parts.

CHAPTER XXXII.

DIVISION XI.

ON THE DISSONANT HARMONY OF TWO DIATONIC AND ONE CHROMATIC SOUNDS, FORMING CHORDS, INVERSIONS OF DOUBLE DIMINISHED TRIADS.

THEOREM I.

The chord of the double diminished triad has two inversions, viz. the chord of the augmented sixth, and the chord of the minor sixth and augmented fourth.

DEFINITION.

The chord of the sixth, the first inversion of the double diminished triad, is a sound with its major third and augmented sixth; it is formed like other inversions of the triad, by taking the third of the grave sound of the triad as a bass, and uniting it with the other two sounds of the triad.

THEOREM II.

A chord of the sixth of this kind can be formed on the diminished third of the leading note in major and minor keys, and on the diminished third of the supertonic in minor keys. Ex.

C major. C minor.

EXERCISE IN THE MAJOR AND MINOR KEYS.

Write consonant triads, their inversions and suspensions in any major or minor key, introducing the major diminished triad and its inversions, also the double diminished triad and its first inversion.

Rules for major and minor keys.

1. The chord of the sixth, the first inversion of the

double diminished triad, can progress to a triad on its nearest grave diatonic, Ex. 1; and when four parts are used, it can progress to a $\frac{6}{4}$ on its nearest grave diatonic sound, and to $\frac{5}{4}$, the suspension of $\frac{5}{3}$, Ex. 2.

2. The augmented sixth must rise to its nearest diatonic sound.

3. The major third of the grave sound (the diminished fifth of the grave sound of the chord inverted) may be combined with its octave or unison, Exs. 2, 3, 4, and 6.

Remark. Neither the grave sound nor its augmented sixth can be combined with their octaves.

ON THE NOTATION OF THE FIRST INVERSION OF THE DOUBLE DIMINISHED TRIAD.

This chord is expressed by the figures $\frac{5}{3}$, or 6. The figure 6 sometimes requires a stroke through it, in order to express the augmented sixth.

ON THE CHORD OF $\frac{6}{4}$, THE SECOND INVERSION OF THE DOUBLE DIMINISHED TRIAD.

DEFINITION.

The chord of $\frac{b6}{4}$, the second inversion of the double diminished triad, is a sound with its augmented fourth and minor sixth; it is produced, like the second inversions of other triads, by taking the fifth of the grave sound of the triad as a bass, and uniting it with the other two sounds of the triad.

THEOREM.

A chord of the $\frac{6}{4}$ of this kind can be formed on the sub-dominant of major and minor keys, Exs. 1, 2, 3, 4, and 5; and on the superdominant of minor keys, Exs. 6 and 7.

EXERCISE.

Write consonant triads, their inversions and suspensions in any major or minor key, introducing the major diminished triad and its inversions, also the double diminished triad and its inversions.

Rules.

1. The chord of $b\frac{6}{4}$, the second inversion of the double diminished triad, can progress to the chord of the sixth on its nearest grave diatonic, Exs. 1, 2, 4, 6, and 7; or the grave sound can be retained whilst the other sounds progress and form a triad, Exs. 3, 5, and 7; it can also progress to the chord of $\frac{5}{3}$, the suspension of the chord of the sixth on the same grave sound, Ex. 8.

2. The augmented fourth of the grave sound should progress to its nearest acute diatonic.

3. The chromatic minor sixth should progress to its nearest grave diatonic.

4. The sound at an augmented fourth from the grave sound should, by inverting it, be made an acuter sound than the minor sixth of the grave sound.

5. The grave sound may be combined with its octave.

Ex. 1. Ex. 2. Ex. 3. Ex. 4.

Ex. 5. Ex. 6. Ex. 7. Ex. 8.

**ON THE NOTATION OF THE SECOND INVERSION OF THE
DOUBLE DIMINISHED TRIAD.**

This chord is expressed by the figures $\flat\frac{8}{4}$, with a flat or natural before the figure 6, in order to make the sixth minor, and in minor keys, a stroke sometimes through the figure 4, thus $\flat\frac{8}{4}$, in order to indicate the augmented fourth.

CHAPTER XXXIII.

DIVISION XII.

**ON THE DISSONANT HARMONY OF FOUR SOUNDS,
FORMING CHORDS OF THE "SEVENTH," ALSO INVERSIONS
AND SUSPENSIONS OF THE CHORD OF THE SEVENTH.***

DEFINITION.

A chord of the "seventh" is a triad to which is added a sound at the interval of a seventh.

THEOREM I.

Upon every sound of the key a chord of the seventh can be formed.

THEOREM II.

Chords of the seventh are named after the kind of seventh the grave sound has diatonically, consequently in major keys there are major and minor chords of the seventh, and in minor keys, major, minor, and diminished chords of the seventh.

* The remainder of Part III treats only of chords of the "seventh" in major keys; for the chords of the "seventh" in minor keys, and "inversions" and "suspensions" of the chords of the seventh, *vide* Part IV. etc.

THEOREM III.

As a chord of the seventh is a triad to which is added a sound at the interval of a seventh, all chords of the seventh do not contain the same intermediate intervals, but vary according to the triads of which they are composed; thus in major keys the chord of the minor seventh on the dominant of a key is the chord of the minor seventh, perfect fifth, and major third, because the triad on the dominant consists of a perfect fifth and major third. The chord of the minor seventh on the supertonic is the chord of the minor seventh, perfect fifth, and minor third, because the triad on the supertonic consists of a perfect fifth and minor third, etc. etc.

THEOREM IV.

The chord of the minor seventh on the dominant is called the chord of the "dominant seventh."

THEOREM V.

The chord of the "seventh" on the leading note of minor keys is called the chord of the "diminished seventh."

THEOREM VI.

The chords of the seventh are thus defined:

IN MAJOR KEYS.

1. The chord of the minor seventh, perfect fifth, and major third, which occurs on the dominant. Chapter xxxiv.
2. The chord of the minor seventh, perfect fifth, and minor third, which occurs on the supertonic, mediant, and superdominant. Chapter xxxv. •
3. The chord of the minor seventh, diminished fifth, and minor third, which occurs on the leading note. Chapter xxxvi.
4. The chord of the minor seventh, chromatic augmented fifth, and major third, which is formed on the dominant. Chapter xxxvii.
5. The chord of the minor seventh, diminished fifth, and chromatic major third, which is formed on the leading note. Chapter xxxviii.

6. The chord of the minor seventh, diminished fifth, and chromatic diminished third, which is formed on the leading note. Chapter xxxix.

7. The chord of the major seventh, perfect fifth, and major third, which occurs on the tonic and subdominant. Chapter xl.

8. The chord of the major seventh, chromatic augmented fifth, and major third, which is formed on the tonic and subdominant. Chapter xli.

IN MINOR KEYS.

1. The chord of the minor seventh, perfect fifth, and major third, which occurs on the dominant, called the dominant seventh, and on the subdominant and minor seventh of the key. Chapter xlII.*

2. The chord of the minor seventh, perfect fifth, and minor third, which occurs on the tonic, subdominant, and dominant of the key. Chapter xlIII.

3. The chord of the minor seventh, diminished fifth, and minor third, which occurs on the supertonic and major sixth of the key. Chapter xlIV.

4. The chord of the minor seventh, chromatic augmented fifth, and major third, which is formed on the subdominant and minor seventh of the key. Chapter xlV.

5. The chord of the major seventh, perfect fifth, and major third, which occurs on the mediant and superdominant of the key. Chapter xlVI.

6. The chord of the major seventh, augmented fifth, and major third, which occurs on the mediant and superdominant of the key. Chapter xlVII.

7. The chord of the major seventh, perfect fifth, and minor third, which occurs on the tonic. Chapter xlVIII.

8. The chord of the diminished seventh,‡ composed of a diminished seventh, diminished fifth, and minor third, which occurs on the leading note. Chapter xlIX.

* *Vide Part IV*, for this and remaining Chapters.

† *Vide Definition of Superdominant in minor keys*, page 43, Part II.

‡ *Vide Theorem v*, page 105.

9. The chord of the diminished seventh, diminished fifth, and chromatic diminished third, which is formed on the leading note. Chapter L.

ON THE NOTATION OF THE CHORD OF THE SEVENTH.

The chord of the seventh is expressed by any of the following figures, $\frac{8}{3}$, $\frac{7}{3}$, $\frac{5}{3}$, $\frac{7}{3}$, $\frac{8}{7}$, $\frac{7}{7}$.

A stroke through the figure 7, thus $\overline{7}$, shows that the interval of the seventh is to be raised a semitone; the figure 7 with a flat, thus $\flat 7$, that the seventh is to be a semitone lower than the diatonic seventh, or seventh according to the notation of the key; with a natural, thus $\natural 7$, that the seventh is to be natural.* As the other intervals in the chords of the seventh belong to the triads of which the chords of the seventh are composed, their notation is similar to that of the triads.†

CHAPTER XXXIV.

DIVISION XII.

ON THE CHORD OF THE MINOR SEVENTH, PERFECT FIFTH,
AND MAJOR THIRD ON THE DOMINANT IN MAJOR KEYS,
CALLED THE DOMINANT SEVENTH.‡

MAJOR KEYS.

THEOREM.

This chord only occurs on the dominant of the key, and is formed by adding the sound at the diatonic interval of a seventh to the major triad on the dominant.

EXERCISE.

Write triads, etc. in any major key, introducing the dominant seventh.

* *Vide Remarks, Part II, page 75.*

† *Vide Notation of Triads, Part II, page 72.*

‡ *Vide Table of Chords of the "Seventh," page 105.*

Remark. The dominant seventh forms the best penultimate chord.

Rules.

1. The grave sound can generally be combined with its octave.

2. The third ought not to be combined with its octave.

Exception. When the major third, instead of progressing to the tonic, progresses to its grave diatonic second, it can be combined with its octave, as in the following Example:



3. The fifth may be combined with its octave.

4. The third is sometimes omitted, but it is generally unadvisable to do so.

5. The fifth may be omitted.

6. The seventh cannot be combined with its octave.

Remark. The interval of the seventh, although a discord, need not be, although it often is, prepared.

ON THE PROGRESSION OF THE SOUNDS FORMING THE CHORD
OF THE DOMINANT SEVENTH TO THOSE OF THE CHORD
TO WHICH IT PROGRESSES.

Rules.

7. The major third* in a close or cadence should rise to its nearest diatonic, Ex. 1; but when the third is required to form a part of the succeeding chord, it can be retained, Ex. 2; and when its progression to its nearest diatonic prevents a desired suspension of one of the other sounds of the chord, it can otherwise progress, Ex. 3.

Remark. In Ex. 3, if B were allowed to progress to C, it would prevent the suspension of C by D, for the note sus-

* The major third of the dominant is always the leading note of the key, and the leading note should progress to the tonic, *vide* page 43, Part II.

pended cannot be combined with the suspension (*vide Rule 4, Part II, page 83*) ; B is therefore allowed to progress to G.

8. The major third sometimes progresses to the sound a diatonic second below, when the chord to which the chord of the seventh progresses contains such a sound, as in Ex. 4; and in progressions similar to Ex. 5, in which the contrary motion of the parts modifies the objection to the third falling.

9. The minor seventh must fall to its nearest grave diatonic, Ex. 6; or be retained, Ex. 7.

Remark. There is no rule for the progression of the perfect fifth.

ON THE PROGRESSION OF THE CHORD OF THE DOMINANT SEVENTH IN MAJOR KEYS TO ANOTHER CHORD IN THE SAME KEY.

PROGRESSIONS TO TRIADS.

Rules.

10. The chord of the minor seventh on the dominant can progress to a triad on the sound a diatonic fourth above, or a fifth below the grave sound upon which the chord of the seventh is formed, Ex. 1, page 110.

Remark. This is the principal progression of this chord; it forms a perfect close or cadence.

11. The chord of the minor seventh on the dominant can progress to a triad on the note above, Ex. 2, page 110.

Remark. This forms what is called the "interrupted cadence." The grave sound ought not to be combined with its octave in making this progression.

PROGRESSIONS TO CHORDS OF THE SIXTH.

Rules.

12. The chord of the seventh on the dominant can progress to a chord of the sixth on the sound a fourth above, Ex. 3.

Remark. In making this progression the third of the dominant is best used as an acute sound.

13. The chord of the seventh on the dominant can progress to a chord of the sixth on the note above, Ex. 4.

Remark. In this progression the discord of the seventh must be retained.

PROGRESSIONS TO CHORDS OF THE $\frac{6}{4}$.*Rules.*

14. The chord of the seventh on the dominant can progress to the chord of the $\frac{6}{4}$ on the same grave sound, Ex. 5.

15. The chord of the seventh on the dominant can progress to the chord of $\frac{6}{4}$ on the sound a fourth above, Ex. 6.

Remark. In this progression the interval of the seventh in the chord of the seventh should be retained, in order to form the fourth in the chord of $\frac{6}{4}$.

16. The chord of the seventh on the dominant can progress to the chord of $\frac{6}{4}$ on the note above, Ex. 7.

Remark. In this progression the intervals of the fifth and seventh in the chord of the seventh should be retained, in order to form the fourth and sixth of the chord of $\frac{6}{4}$.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5. Ex. 6. Ex. 7.

PROGRESSIONS TO THE SUSPENSIONS OF TRIADS.

Rules.

17. The chord of the seventh on the dominant can

progress to the following suspensions of a triad on the sound a diatonic fourth above, or fifth below,* viz. the chords of $\frac{5}{4}$, $\frac{9}{8}$, $\frac{9}{4}$, Exs. 1, 2, and 3.

Ex. 1.



Ex. 2.



Ex. 3.



18. The chord of the seventh on the dominant can progress to the following suspensions of a triad on the note above, viz. $\frac{5}{4}$, $\frac{9}{8}$, $\frac{9}{4}$, $\frac{6}{5}$, $\frac{6}{4}$, $\frac{9}{8}$, $\frac{9}{4}$, Exs. 4, 5, 6, 7, 8, 9, and 10.

Ex. 4.



Ex. 5.



Ex. 6.



Ex. 7.



Ex. 8.



Ex. 9.



Ex. 10.



PROGRESSIONS TO SUSPENSIONS OF CHORDS OF THE SIXTH.[†]

Rules.

19. The chord of the seventh on the dominant can progress to the following suspensions of the chord of the sixth on the sound a diatonic fourth above, or fifth below, viz. to $\frac{3}{2}$, $\frac{9}{8}$, $\frac{9}{4}$, $\frac{6}{5}$, $\frac{6}{4}$, $\frac{9}{8}$, $\frac{9}{4}$, Exs. 11, 12, 13, 14, 15, 16, and 17, page 112.

* In nearly every case in which a chord can progress to either a fourth above, or fifth below, the "fourth above" is preferable to the "fifth below," as it prevents bidden octaves.

† None of the suspensions of the chord of the sixth in which the eighth is suspended by the ninth form satisfactory progressions, although they can sometimes be used.

Ex. 11.

Ex. 12.

Ex. 13.

Ex. 14.

Musical examples 11 through 14 show four different harmonic progressions. Each example consists of two measures of music in common time. The first measure of each example shows a chord of the seventh on the dominant (G7) followed by a suspension. The second measure shows the progression to the chord of the sixth on the note above. The notes are indicated by numbers below the staff, representing their pitch in a specific tuning system.

Ex. 15.

Ex. 16.

Ex. 17.

Musical examples 15 through 17 show three different harmonic progressions. Each example consists of two measures of music in common time. The first measure of each example shows a chord of the seventh on the dominant (G7) followed by a suspension. The second measure shows the progression to the chord of the sixth on the note above. The notes are indicated by numbers below the staff, representing their pitch in a specific tuning system.

20. The chord of the seventh on the dominant can progress to the following suspensions of the chord of the sixth on the note above, viz. to $\frac{5}{3}$, $\frac{6}{4}$, $\frac{9}{4}$, Exs. 18, 19, and 20.

Ex. 18.

Ex. 19.

Ex. 20.

Musical examples 18, 19, and 20 show three different harmonic progressions to suspensions of the chord of the sixth. Each example consists of two measures of music in common time. The first measure shows a chord of the seventh on the dominant (G7) followed by a suspension. The second measure shows the progression to a suspension of the chord of the sixth on the note above. The notes are indicated by numbers below the staff, representing their pitch in a specific tuning system.

PROGRESSIONS TO THE SUSPENSIONS OF $\frac{6}{4}$.*

Rules.

21. The chord of the seventh on the dominant can progress to the following suspensions of $\frac{6}{4}$ on the same grave sound, viz. to $\frac{7}{4}$, $\frac{8}{4}$, and $\frac{7}{5}$, Exs. 1, 2, and 3.

22. The chord of the seventh on the dominant can progress to the following suspensions of $\frac{6}{4}$ on the sound a fourth above, or fifth below, viz. to $\frac{7}{4}$, $\frac{8}{4}$, $\frac{9}{4}$, Exs. 4, 5, and 6.

23. The chord of the seventh on the dominant can progress to the following suspension of $\frac{6}{4}$ on the note above, viz. to $\frac{9}{4}$, Ex. 7, page 113.

Ex. 1.

Ex. 2.

Ex. 3.

Ex. 4.

Musical examples 1 through 4 show four different harmonic progressions to suspensions of the chord of the sixth. Each example consists of two measures of music in common time. The first measure shows a chord of the seventh on the dominant (G7) followed by a suspension. The second measure shows the progression to a suspension of the chord of the sixth on the note above. The notes are indicated by numbers below the staff, representing their pitch in a specific tuning system.

* For Progressions from $\frac{6}{4}$, vide page 74, Part II.

Ex. 5. Ex. 6. Ex. 7.

$\frac{7}{4}$ $\frac{9}{4}$ $\frac{8}{4}$

$\frac{7}{4}$ $\frac{9}{4}$ $\frac{8}{4}$

$\frac{7}{4}$ $\frac{9}{4}$ $\frac{8}{4}$

ON THE CHORDS WHICH CAN PRECEDE* THE CHORD OF THE MINOR SEVENTH, PERFECT FIFTH, AND MAJOR THIRD.

The chord of the dominant seventh can be preceded by the following chords :

1st. By a diatonic triad on any sound of the key, and by the augmented triad on the subdominant.

2nd. By a diatonic chord of the sixth on any sound of the key, and by the chord of the minor sixth, and chromatic major third on the superdominant.

Exception. The diatonic chord of the sixth does not progress well by the skip of a grave perfect fourth or acute perfect fifth, consequently it is well to avoid preceding the chord of the seventh by a chord of the sixth which skips such an interval.

3rd. By the chord of $\frac{9}{4}$ on the dominant, Ex. 1; superdominant, Ex. 2; leading note, Ex. 3; tonic, Ex. 4; supertonic, Ex. 5; subdominant, Ex. 6; but the $\frac{9}{4}$ is principally used on the dominant.

4th. By the following suspensions of a triad on the same grave sound, viz., $\frac{5}{4}$, Ex. 7; $\frac{9}{3}$, Ex. 8; $\frac{9}{4}$, Ex. 9.

Ex. 1. Ex. 2. Ex. 3. Ex. 4.

$\frac{6}{4}$ $\frac{7}{3}$

$\frac{6}{4}$ $\frac{7}{3}$

$\frac{6}{4}$ $\frac{7}{3}$

$\frac{9}{7}$

$\frac{9}{7}$

* By giving the chords which can precede the various chords of the "seventh," additional progressions are shown of chords *already* described. For example: the progression of $\frac{4}{4}$, $\frac{5}{4}$, $\frac{9}{3}$, $\frac{9}{4}$, etc. to $\frac{7}{3}$. These progressions could not have been given before, because the chord of the seventh had not been described.

CHAPTER XXXV.

DIVISION XII.

ON THE CHORD OF THE MINOR SEVENTH, PERFECT FIFTH,
AND MINOR THIRD IN MAJOR KEYS.*

THEOREM.

This chord is formed by adding a sound at the interval of a diatonic seventh to the minor triad on the supertonic, mediant, and superdominant of major keys.

EXERCISE.

Write triads, etc. in any major key, introducing the chord of the dominant seventh, and the chord of the minor seventh, perfect fifth, and minor third, on the supertonic, mediant, and superdominant of the key.

Advice. In selecting the progressions for the chords of the seventh, select principally those which are consonant. The "suspensions," particularly the "compound suspensions," should only be occasionally introduced, except for practice in using them. The majority of them sound very harsh. In the works of the most elaborate harmonists harsh combinations are only occasionally used.

Rules for major keys.

1. The grave sound can generally be combined with its octave.†

2. The third can be combined with its octave, whenever many parts are required.

Remark. The octave or perfect fifth of the grave sound are preferable sounds to combine with their octaves.

3. The fifth may be combined with its octave.

* *Vide* Table of Chords of the "Seventh," page 105.

† In some progressions, if the grave sound is combined with its octave, consecutive or hidden octaves ensue; in these progressions it is therefore advisable not to combine the grave sound with its octave.

4. The third is sometimes omitted, but it is generally unadvisable to do so.
5. The fifth may be omitted.
6. The interval of the seventh is usually prepared, but it can be taken without preparation.
7. The seventh cannot be combined with its octave.

ON THE PROGRESSION OF THE *SOUNDS* FORMING THE CHORD OF THE MINOR SEVENTH, PERFECT FIFTH, AND MINOR THIRD IN MAJOR KEYS, TO THOSE OF THE CHORD TO WHICH IT PROGRESSES.

Rule. The minor seventh must fall to its nearest diatonic sound, or be retained.

Remark. There are no rules for the progression of the perfect fifth and minor third.

ON THE PROGRESSION OF THE *CHORD* OF THE MINOR SEVENTH, PERFECT FIFTH, AND MINOR THIRD IN MAJOR KEYS, TO ANOTHER CHORD IN THE SAME KEY.

THEOREM I.

The chord of the minor seventh, perfect fifth, and minor third, which occurs on the supertonic, mediant, and superdominant, has similar progressions to the dominant seventh.*

Exception 1. When the chord of the seventh on the superdominant progresses to a chord on the note above, i. e. to the leading note, and the leading note progresses to the tonic, that chord should not contain a suspension of the eighth.

Exception 2. When the grave sound† to which the chord of the seventh progresses is the diminished fifth of the chord of which it is an inversion, it should not have the suspension formed on it, nor the chord of $\frac{6}{4}$, suspension of $\frac{5}{3}$.

* *Vide* Progressions of the Dominant Seventh, page 109.

† I. E. when the chord of the "seventh" on the mediant progresses to the subdominant.

THEOREM II.

The chord of the minor seventh, perfect fifth, and minor third on the supertonic, mediant, and superdominant, can also progress to a triad on the note below in a descending passage, as in the following Example:



THEOREM III.

The chord of the minor seventh, perfect fifth, and minor third can also progress to the diatonic chord of the seventh on the fourth above, or fifth below, provided the interval of the seventh is prepared, as in the following Examples:



EXAMPLES OF PROGRESSIONS TO TRIADS.

Remark 1. In the progression to the fourth above, or fifth below, the minor third is better employed as an intermediate than as an acute sound.

Remark 2. In the progression to the note above, the grave sound should not be combined with its octave, in order to avoid consecutive and hidden octaves.

PROGRESSIONS TO CHORDS OF THE SIXTH.

Remark 3. In the progression to the note above, the

seventh should be retained. It is best used as an acute sound.

Remark 4. In the progression to the fourth above, the minor third is best used as an acute sound.

PROGRESSIONS TO THE CHORD OF $\frac{6}{4}$.

On the same grave sound.

On the note above.

On the fourth above, or fifth below.

Remark. In progressing to $\frac{6}{4}$ on the note above, the grave sound must not be combined with its octave.

PROGRESSION TO THE SUSPENSIONS OF A TRIAD, VIZ. $\frac{5}{4}, \frac{9}{3}, \frac{9}{4}$,
ON THE FOURTH ABOVE, OR FIFTH BELOW.

To $\frac{5}{4}$

To $\frac{9}{3}$

To $\frac{9}{4}$.

PROGRESSIONS TO THE SUSPENSIONS OF A TRIAD, VIZ. .

$\frac{5}{4}, \frac{9}{3}, \frac{9}{4}, \frac{6}{3}, \frac{6}{4}, \frac{9}{6}, \frac{9}{4}$, ON THE NOTE ABOVE.

To $\frac{5}{4}$.

To $\frac{9}{3}$.

To $\frac{5}{4}$. To $\frac{5}{3}$.

7 9 8 7 9 8 7 6 5 7 6 5 7 6 5 7 6 5

To $\frac{6}{4}$. To $\frac{5}{4}$. To $\frac{5}{4}$.

7 6 5 7 6 5 7 9 8 7 9 8 7 9 8 7 9 8

Remark 1. There is no example given of the progression of the chord of the minor seventh, perfect fifth, and minor third on the superdominant to the suspensions $\frac{9}{4}$, $\frac{9}{6}$, $\frac{9}{4}$, on the note above, *vide Exception 1*, Theorem I.

Remark 2. There is no example given of the progression of the chord of the “seventh” on the mediant to the suspension $\frac{5}{4}$ on the note above; *vide Exception 2*, Theorem I. The chord of $\frac{5}{4}$ on the subdominant does not progress well to $\frac{5}{3}$ on the same grave sound (*vide* Progressions of $\frac{5}{4}$, page 74, Part II); and as, when $\frac{5}{4}$ is used as a suspension of $\frac{5}{3}$, and not an inversion of $\frac{5}{3}$, it cannot be distinguished by the ear from the inversion, the remarks about the progression of the inversion are applicable to the suspension.

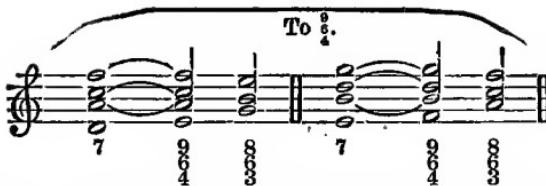
PROGRESSIONS TO THE SUSPENSIONS OF THE CHORD OF
THE $\frac{5}{4}$,† VIZ. $\frac{9}{6}$, $\frac{6}{4}$, $\frac{9}{4}$, ON THE NOTE ABOVE.

To $\frac{5}{4}$. To $\frac{5}{4}$.

7 9 8 7 9 8 7 6 3 7 6 3 7 6 3 7 6 3

* The third can be omitted in this chord, in order to avoid doubling the leading note in the chord of $\frac{5}{4}$.

† *Vide Note* † page 111.



Remark. There is no example given of the progression of the chord of the minor seventh, perfect fifth, and minor third on the superdominant to $\frac{9}{4}$, or $\frac{9}{4}$ on the leading note, *vide Exception 1, Theorem I, page 116.*

PROGRESSIONS TO THE SUSPENSIONS OF THE CHORD OF THE SIXTH, VIZ. TO $\frac{7}{3}$, $\frac{9}{3}$, $\frac{9}{3}$, $\frac{6}{4}$, $\frac{7}{4}$, $\frac{9}{4}$, $\frac{9}{3}$, ON THE FOURTH ABOVE, OR FIFTH BELOW.*

* The "fourth above" is preferable to the "fifth below" in all these progressions, although, in order to bring the examples into the staff of five lines, it is not always adopted. The suspension of the eighth by the ninth in the chord of the sixth is not the most advisable progression, but it can be used as shown in the examples.

To $\frac{7}{4}$.

To $\frac{9}{4}$.

PROGRESSIONS TO THE SUSPENSIONS OF THE CHORD OF $\frac{6}{4}$,
VIZ. $\frac{7}{4}$, $\frac{6}{5}$, $\frac{7}{5}$, ON THE SAME GRAVE SOUND.

To $\frac{7}{4}$.

To $\frac{9}{4}$.

To $\frac{7}{5}$.

PROGRESSION TO A SUSPENSION OF $\frac{6}{4}$, VIZ. TO $\frac{9}{4}$,
ON THE NOTE ABOVE.

Remark 1. There is no example given of the progression of the chord of the seventh on the *mediant* to the suspension of $\frac{9}{4}$ on the note above (viz. on the subdominant F), *vide Exception 2*; F is the diminished fifth of the chord inverted, and as the diminished fifth should progress to its nearest grave diatonic, it cannot have the suspension 9 formed on it.

Remark 2. There is no example given of the progression from the superdominant to $\frac{9}{4}$ on the note above; *vide Exception 1, Theorem I.*

PROGRESSIONS TO THE SUSPENSIONS OF $\frac{6}{4}$, VIZ. $\frac{7}{4}$, $\frac{9}{4}$, $\frac{5}{4}$,
ON THE FOURTH ABOVE, OR FIFTH BELOW.

The image contains three staves of musical notation, each representing a different progression to a suspension of the $\frac{6}{4}$ chord. The notation is in common time with a treble clef and a key signature of one sharp. The first staff is labeled "To $\frac{7}{4}$.", the second "To $\frac{9}{4}$.", and the third "To $\frac{5}{4}$.". Each staff consists of three measures separated by double bar lines. Below each staff are numerical basso continuo markings indicating harmonic functions or specific notes. In the first staff, the markings are 7, 7, 4, 6. In the second staff, they are 7, 9, 6, 8. In the third staff, they are 7, 9, 4, 8. The music includes various note heads, stems, and beams, with some notes having horizontal dashes through them.

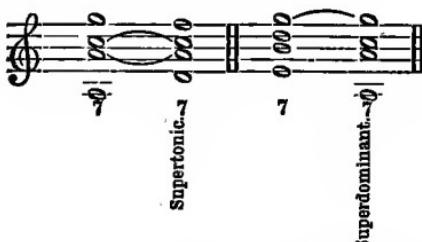
ON THE CHORDS WHICH CAN PRECEDE THE CHORD OF THE
MINOR SEVENTH, PERFECT FIFTH, AND MINOR THIRD.

Any diatonic triad, and any diatonic chord of the sixth can precede the chord of the minor seventh, perfect fifth, and minor third, on the supertonic, mediant, and superdominant of major keys, which prepares the discord of the seventh in the chord of the seventh.

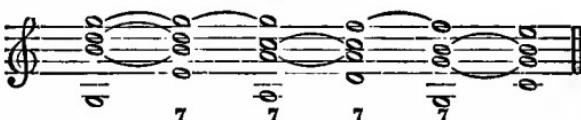
The chord of the minor seventh, perfect fifth, and minor third on the supertonic and superdominant can be preceded* by a similar kind of chord of the seventh, on the sound a fifth

* *Vide Theorem III, page 116.*

above, or fourth below, provided the interval of a seventh is prepared, as in the following Examples :



The following sequence can therefore be formed with the chords of the minor seventh, perfect fifth, and minor third and the dominant seventh, provided the interval of a seventh in the chord of the dominant seventh, as well as in the other chords of the seventh, is prepared.



When the discord in the chord of the minor seventh, perfect fifth, and minor third, is not prepared,* this chord can be preceded by a diatonic triad on any sound of the key; by the following suspensions of the triad on the same grave sound, viz. $\frac{5}{4}$, $\frac{3}{2}$, $\frac{2}{1}$; and by a diatonic chord of the sixth on any sound of the key (with the same *Exception* as given on page 113). The diatonic chord of the seventh on the super-dominant can also be preceded by the chord of the minor sixth, and chromatic major third on the leading note.

Remark. The chord of the $\frac{5}{4}$ forms the least agreeable combination to precede, as well as to succeed, the chord of the minor seventh, perfect fifth, and minor third; and therefore should not be much used. In the following Examples, the $\frac{5}{4}$ is not disagreeable. In Ex. 1, it forms almost a cadence, and D, which is the supertonic, sounds like a dominant, and upon dominants the $\frac{5}{4}$ is agreeable. In Ex. 2, by retaining the fourth in the chord of $\frac{5}{4}$ to form part of the

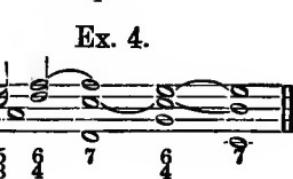
* The minor seventh is usually prepared, *vide* Rule 6, page 115.

chord of the seventh on D, its use is not disagreeable. The same may be said of its use in Ex. 3. In Ex. 4, the marked sequence in the bass falling a fifth and rising a fourth, prevents the chords of the ♫ being disagreeable.

Ex. 1.



Ex. 2



Ex. 3.



Ex. 4.

CHAPTER XXXVI.

DIVISION XII.

ON THE CHORD OF THE MINOR SEVENTH, DIMINISHED FIFTH,
AND MINOR THIRD, FORMED ON THE LEADING NOTE
IN MAJOR KEYS.*

THEOREM.

The chord of the minor seventh, diminished fifth, and minor third, is formed by adding a sound at the interval of a diatonic seventh to the diminished triad on the leading note of major keys.

EXERCISE.

Write triads, etc. in any major key, introducing the chord of the minor seventh, diminished fifth, and minor third on the leading note.

* *Vide* Table of Chords of the "Seventh," page 105.

Rules.

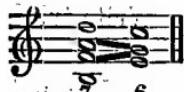
1. The grave sound can sometimes be combined with its octave; but when it progresses to the note above (viz. the tonic), it can never be combined with its octave.
2. The third can be combined with its octave.
3. The diminished fifth, when four or more parts are used, can be combined with its octave.
4. The third is sometimes omitted; but it is generally unadvisable to do so.
5. The diminished fifth may be omitted; but as it is the "characteristic" sound of the chord, it should not generally be omitted.
6. The minor seventh is usually prepared; but it is also used without preparation; for example, when it forms part of a melody, etc. it cannot be combined with its octave.

ON THE PROGRESSION OF THE *sounds forming the chord of the minor seventh, diminished fifth, and minor third, to those of the chord to which it progresses.*

Rules.

1. The minor seventh must progress to its nearest grave diatonic, or be retained.
- Remark.* This progression is similar to all other minor sevenths.
2. The diminished fifth should progress to its nearest grave diatonic, or be retained.

Exception. When the chord of the minor seventh, diminished fifth, and minor third progresses to the chord of the sixth on the fourth above (viz. to the same sound to which the diminished fifth should progress), the diminished fifth in the chord of the seventh can progress to its nearest acute diatonic, as in the following Example:



Remark. There is no rule for the progression of the minor third.

ON THE PROGRESSION OF THE CHORD OF THE MINOR SEVENTH, DIMINISHED FIFTH, AND MINOR THIRD ON THE LEADING NOTE IN MAJOR KEYS, TO ANOTHER CHORD IN THE SAME KEY.

THEOREM I.

The chord of the minor seventh, diminished fifth, and minor third has similar progressions to the chord of the dominant seventh.

Exception. The chord of the minor seventh, diminished fifth, and minor third does not progress well to suspensions of $\frac{5}{4}$ on the same grave sound. These progressions should therefore generally be avoided.

The best and most generally used progression of the chord of the minor seventh, diminished fifth, and minor third is to a triad, or to the second inversion of a triad on the note

above, viz. the tonic. Ex.



THEOREM II.

The chord of the minor seventh, diminished fifth, and minor third on the leading note can also progress to a triad on the note below; as, for example, in the following descending passage:



THEOREM III.

The chord of the minor seventh, diminished fifth, and

* The diminished fifth must be omitted when the chord progresses to a triad on the note below, as in this Example.

minor third can also progress to the diatonic chord of the seventh on the fourth above, or fifth below, provided the interval of the seventh is prepared. Ex.



For progressions to a triad on the fourth above, *vide* Ex. 1.

For progressions to the chord of the sixth on the fourth above, *vide* Ex. 2.

For progressions to the chord of the sixth on the note above, *vide* Ex. 3.

For progressions to the chord of $\frac{6}{4}$ on the same grave sound, *vide* Ex. 4.

For progressions to the chord of $\frac{6}{4}$ on the fourth above, *vide* Ex. 5.

For progressions to the chord of $\frac{6}{4}$ on the note above, *vide* Ex. 6.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5. Ex. 6.

Remark. The diminished fifth in Ex. 2 is made to rise, *vide* Exception, Rule 2, page 124.

PROGRESSIONS TO THE SUSPENSIONS OF A TRIAD.

Ex. 1.

Ex. 2.

Ex. 3.

On the fourth above.

Ex. 4.

Ex. 5.

Ex. 6.

Ex. 7.

On the note above.

Ex. 8.

Ex. 9.

Ex. 10.

On the note above.

PROGRESSIONS TO THE SUSPENSIONS OF THE CHORD OF THE SIXTH.*

Ex. 11.

Ex. 12.

Ex. 13.

Ex. 14.

Ex. 15.

On the note above.

On the fourth above.

Ex. 16.

Ex. 17.

Ex. 18.

Ex. 19.

Ex. 20.

On the fourth above.

PROGRESSIONS TO THE SUSPENSIONS OF THE CHORD OF $\frac{6}{4}$.

Ex. 21.

Ex. 22.

Ex. 23.

Ex. 24.

On the note above.

On the fourth above.

* None of the suspensions of the chord of the "sixth" in which the eighth is suspended by the ninth form agreeable combinations; for the octave to the bass is best omitted in the chord of the "sixth," which cannot be done if the eighth is suspended, as the ninth must resolve to the eighth. Suspensions of this kind require much art to be able to use them at all; they are, therefore, not advisable progressions.

† This line — implies that the preceding figure in a similar position to the line is to be used again. In the above example the following $\frac{6}{4}$ stand, for $\frac{6}{4}$.

ON THE CHORDS WHICH CAN PRECEDE THE CHORD OF THE
MINOR SEVENTH, DIMINISHED FIFTH, AND MINOR THIRD
ON THE LEADING NOTE.

THEOREM I.

The chord of the minor seventh, diminished fifth, and minor third can be preceded by a diatonic triad on any sound of the key; by the augmented triad on the subdominant; by the following suspensions of the diatonic triad on the same grave sound, viz. $\frac{5}{4}$, $\frac{3}{2}$, $\frac{2}{1}$; by a diatonic chord of the sixth on any sound of the key (with the same *Exception* as given on page 113); by the chord of the minor sixth, and chromatic major third on the superdominant; and by a diatonic chord of $\frac{6}{4}$ on any sound of the key.

Exception. It should not be preceded by $\frac{6}{4}$ on the mediant.

The chord of the minor seventh, diminished fifth, and minor third on the leading note can be preceded by the chord of the seventh on the dominant (as in the following Example, in which also is shown a "sequence," formed with the chords of the seventh hitherto used); also by the chord of the diatonic seventh on the superdominant.



CHAPTER XXXVII.

DIVISION XII.

ON THE CHORD OF THE MINOR SEVENTH, AUGMENTED FIFTH,
AND MAJOR THIRD, FORMED ON THE DOMINANT IN MAJOR KEYS.*

THEOREM.

The chord of the minor seventh, augmented fifth, and major third is formed by adding a sound at the diatonic

* *Vide Table of Chords of the "Seventh,"* page 105.

interval of a seventh to the augmented triad on the dominant of major keys. Ex. 

Remark. When the augmented fifth is used as the acute sound it forms the best position for this chord.

EXERCISE.

Write consonant triads in any major key, introducing some of the other chords before described, also the chord of the minor seventh, augmented fifth, and major third on the dominant.

Rules.

1. The grave sound can generally be combined with its octave.
2. The major third ought not to be combined with its octave.

Exception. When the major third is retained, it can sometimes be combined with its octave; for example, B, in Ex. 4, could be combined with its octave.

3. Neither the augmented fifth nor minor seventh can be combined with their octaves.

ON THE PROGRESSION OF THE SOUNDS OF THE CHORD OF THE MINOR SEVENTH, AUGMENTED FIFTH, AND MAJOR THIRD, TO THOSE OF THE CHORD TO WHICH IT PROGRESSES.

Rules.

3. When the grave sound progresses to a triad on the fourth above, or fifth below, the major third should progress to its nearest acute diatonic (viz. to the tonic).

4. The augmented fifth, if not previously prepared, must proceed from its nearest diatonic, and progress to its nearest acute diatonic.

5. The minor seventh must progress to its nearest grave diatonic.

Remark. The minor seventh cannot be retained.

6. The minor seventh can be used with or without preparation.

ON THE PROGRESSION OF THE CHORD OF THE MINOR SEVENTH,
AUGMENTED FIFTH, AND MAJOR THIRD ON THE DOMINANT
OF MAJOR KEYS, TO ANOTHER CHORD IN THE SAME KEY.

Rules.

7. The chord of the minor seventh, augmented fifth, and major third on the dominant can progress to a triad on the tonic, Exs. 1 and 2.

Remark. This is its best progression.

8. The chord of the minor seventh, augmented fifth, and major third can progress to the chord of $\frac{4}{3}$ on the same grave sound, Ex. 3.

Remark. This is its second-best progression.

9. The chord of the minor seventh, augmented fifth, and major third can progress to the chord of the sixth on the same grave sound, Ex. 4; also to the chord of the sixth and its suspension, $\frac{7}{5}$, on its acute diatonic fourth, or grave diatonic fifth, Exs. 5 and 6.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5. Ex. 6.

ON THE CHORDS WHICH CAN PRECEDE THE MINOR SEVENTH,
AUGMENTED FIFTH, AND MINOR THIRD ON THE DOMINANT
OF MAJOR KEYS.

THEOREM I.

The chord of the minor seventh, augmented fifth, and major third can be preceded by any consonant triad and its first inversion, except the augmented triad on the tonic, and the chords of the sixth on the tonic, supertonic, and mediant, which contain the sound from which the augmented fifth must proceed, Exs. 1, 2, 3, 4, 5, and 6; and by the diatonic chord of $\frac{4}{3}$ on the subdominant, Ex. 7, and dominant; also by the following suspensions of the diatonic triad on the same grave sound, viz. $\frac{5}{4}$, $\frac{3}{2}$, $\frac{2}{1}$.

Exception. A triad on the superdominant cannot precede

the chord of the minor seventh, augmented fifth, and major third on the dominant, as its progression produces consecutive fifths.

THEOREM II.

The chord of the minor seventh, augmented fifth, and major third can be preceded by the major diminished triad on the leading note, Ex. 8; and its second inversion on the subdominant, Ex. 9.

THEOREM III.

The chord of the minor seventh, augmented fifth, and major third on the dominant can be preceded by the chord of the dominant seventh, Ex. 10.

Remark. This is the chord which is generally used to precede the chord of $\frac{7}{5}$ on the dominant.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5.

Ex. 6. Ex. 7. Ex. 8. Ex. 9. Ex. 10.

CHAPTER XXXVIII.

DIVISION XII.

ON THE CHORD OF THE MINOR SEVENTH, DIMINISHED FIFTH,
AND MAJOR THIRD ON THE LEADING NOTE OF MAJOR KEYS.*

THEOREM.

The chord of the minor seventh, diminished fifth, and

* *Vide Table of Chords of the "Seventh," page 105.*

major third is formed by adding the sound at the interval of a diatonic seventh to the major diminished triad on the

leading note of major keys Ex.



EXERCISE.

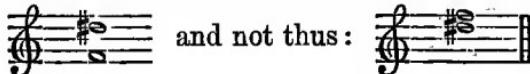
Write triads, and other chords previously explained, in any major key, introducing the chord of the minor seventh, diminished fifth, and major third on the leading note.

Rules.

1. The grave sound can be combined with its octave, except the chord progresses to a combination on the note above.

Remark. The other sounds cannot be combined with their octaves, nor can any sound be omitted.

2. The chromatic major third should be made by inversion an acuter sound than the diminished fifth, thus :



ON THE PROGRESSION OF THE SOUNDS FORMING THE CHORD OF THE MINOR SEVENTH, DIMINISHED FIFTH, AND MAJOR THIRD, TO THOSE OF THE CHORD TO WHICH IT PROGRESSES.

Rules.

3. The major third, unless previously prepared, must proceed from its nearest diatonic sound, and it must progress to its nearest acute diatonic.

4. The diminished fifth should progress to its nearest grave diatonic.

5. The minor seventh should progress to its nearest grave diatonic, or be retained.

ON THE PROGRESSION OF THE CHORD OF THE MINOR SEVENTH, DIMINISHED FIFTH, AND MAJOR THIRD ON THE LEADING NOTE OF MAJOR KEYS, TO ANOTHER CHORD IN THE SAME KEY.

Rules.

PROGRESSIONS TO A TRIAD.

6. The chord of the minor seventh, diminished fifth, and major third can progress to a triad on the note above, Ex. 1.
7. The chord of the minor seventh, diminished fifth, and major third can progress to a triad on the diatonic fourth above, or fifth below, Ex. 2.

PROGRESSIONS TO CHORDS OF THE SIXTH.

8. The chord of the minor seventh, diminished fifth, and major third can progress to the chord of the sixth on the note above, Ex. 3.

PROGRESSIONS TO THE CHORD OF $\frac{6}{4}$.

9. The chord of the minor seventh, diminished fifth, and major third can progress to the chord of $\frac{6}{4}$ on the same grave sound, Ex. 4.

Remark. In Ex. 4 is shown also the progression of $\frac{6}{4}$ on the leading note.

10. The chord of the minor seventh, diminished fifth, and major third can progress to the chord of $\frac{6}{4}$ on the fourth above, or fifth below, Ex. 5.

Remark. In Ex. 6 is shown, in addition to the progression of the chord of the seventh to the chord of $\frac{6}{4}$, the progression of $\frac{6}{4}$ on the mediant.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5. Ex. 6.

The musical score contains six examples (Ex. 1 to Ex. 6) of harmonic progression. Each example is divided into two measures by a vertical bar line. The first measure of each example shows a progression from a minor seventh chord (B7) to a diminished fifth chord (A7sus4) or a major third chord (G7). The second measure shows a progression to another chord in the same key. The bass line is provided in the bass clef staff, showing the root notes of the chords. The progression follows the rules outlined in the text, such as moving to a triad on the note above or the diatonic fourth above.

PROGRESSIONS TO THE SUSPENSIONS OF A TRIAD.

11. The chord of the minor seventh, diminished fifth, and major third can progress to the following suspension of a triad on the note above; viz. $\frac{5}{4}$, Ex. 7.

12. The chord of the minor seventh, diminished fifth, and major third can progress to the following suspension of a triad on the fourth above, or fifth below; viz. $\frac{5}{4}$, Ex. 8.

Ex. 7.



Ex. 8.



ON THE CHORDS WHICH CAN PRECEDE THE CHORD OF THE MINOR SEVENTH, DIMINISHED FIFTH, AND MAJOR THIRD ON THE LEADING NOTE OF MAJOR KEYS.

Rules.

1. The chord of the minor seventh, diminished fifth, and major third, on the leading note can be preceded by any consonant triad, which contains a sound from which the chromatic third can proceed; by the suspensions $\frac{5}{4}$, $\frac{3}{2}$, $\frac{2}{1}$, on the same grave sound; by any consonant chord of the sixth that contains the sound from which the chromatic third can proceed, except a chord of the sixth on the supertonic and mediant; by any consonant diatonic chord of $\frac{6}{4}$ from which the chromatic third can proceed, except the chord of $\frac{6}{4}$ on the mediant and dominant.

2. The chord of the minor seventh, diminished fifth, and major third can be preceded by the major diminished triad on the leading note, Ex. 1; by the chord of the dominant seventh, Ex. 2; by a diatonic chord of the seventh on the superdominant, Ex. 3.

Ex. 1.

Ex. 2.

Ex. 3.



CHAPTER XXXIX.

DIVISION XII.

ON THE CHORD OF THE MINOR SEVENTH, DIMINISHED FIFTH,
AND DIMINISHED THIRD, FORMED ON THE LEADING NOTE
OF MAJOR KEYS.*

THEOREM.

The chord of the minor seventh, diminished fifth, and diminished third is formed by adding the diatonic interval of a seventh to the double diminished triad on the leading note in major keys. Ex. 

EXERCISE.

Write consonant triads in any major key, introducing some of the other chords already described, and the chord of the minor seventh, diminished fifth, and diminished third on the leading note.

Rules.

1. The grave sound cannot be combined with its octave.
2. The diminished third cannot be combined with its octave.
3. The minor seventh cannot be combined with its octave.
4. The diminished fifth, when four parts are used, can be combined with its octave.

Remark. No sound of the chord should be omitted.

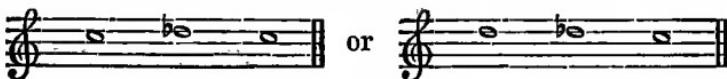
5. The chromatic diminished third should always be used in its compound form ; it should not be nearer the grave sound than a diminished tenth.

* *Vide* Table of Chords of the "Seventh," page 105.

ON THE PROGRESSION OF THE *SOUNDS* FORMING THE CHORD
 OF THE MINOR SEVENTH, DIMINISHED FIFTH, AND
 DIMINISHED THIRD, TO THOSE OF THE CHORD TO WHICH
 IT PROGRESSES.

Rules.

1. The diminished third, unless previously prepared, must proceed from its nearest diatonic, and it must progress to its nearest grave diatonic Ex.



2. The diminished fifth should progress to its nearest grave diatonic; but when it is combined with its octave, one sound can so progress whilst the other progresses otherwise; or one sound can be retained whilst the other progresses. Ex.



3. The minor seventh should progress to its nearest grave diatonic, or be retained.

ON THE PROGRESSION OF THE *CHORD* OF THE MINOR SEVENTH,
 DIMINISHED FIFTH, AND DIMINISHED THIRD ON THE LEADING
 NOTE OF MAJOR KEYS, TO ANOTHER CHORD IN THE SAME KEY.

Rules.

1. The chord of the minor seventh, diminished fifth, and diminished third on the leading note can progress to a triad on the note above, Ex. 1.
2. The chord of the minor seventh, diminished fifth, and diminished third on the leading note can progress to the chord of $\frac{6}{4}$ on the note above; Ex. 2.
3. The chord of the minor seventh, diminished fifth, and diminished third on the leading note can progress to the

following suspensions of a triad on the note above; viz. to $\frac{5}{4}$, Ex. 3; and to $\frac{6}{4}$, Ex. 4.

Ex. 1. Ex. 2. Ex. 3. Ex. 4.

ON THE CHORDS WHICH CAN PRECEDE THE CHORD OF THE MINOR SEVENTH, DIMINISHED FIFTH, AND DIMINISHED THIRD ON THE LEADING NOTE IN MAJOR KEYS.

Rules.

1. The chord of the minor seventh, diminished fifth, and diminished third on the leading note can be preceded by any diatonic triad which contains the sound from which the chromatic diminished third of the chord $\frac{5}{4}$ on the leading note must proceed.
2. The chord of $\frac{6}{4}$ should not precede the chord of $\frac{5}{4}$ on the leading note, except the chord of $\frac{6}{4}$ on the tonic, Ex. 1; and on the superdominant.
3. The chord of the minor seventh, diminished fifth, and diminished third can be preceded by the chord of the double diminished triad on the leading note, and by the chord of the dominant seventh, Ex. 2.

Ex. 1. Ex. 2.



CHAPTER XI.

DIVISION XII.

ON THE CHORD OF THE MAJOR SEVENTH, PERFECT FIFTH,
AND MAJOR THIRD.*

THEOREM.

The chord of the major seventh, perfect fifth, and major third is formed by adding a sound at the interval of a diatonic seventh to the major triad on the tonic and subdominant of major keys.

EXERCISE.

Write triads, etc. in any major key, introducing the chord of the major seventh, perfect fifth, and major third on the tonic and subdominant.

Rules.

1. The grave sound should not be combined with its octave.

Exception. When the major seventh, instead of progressing to the minor second above, progresses to the note below, the grave sound can be combined with its octave.

2. The interval of the major seventh is generally best used by preparation.

3. The major seventh should not be combined with its octave.

ON THE PROGRESSION OF THE SOUNDS FORMING THE CHORD
OF THE MAJOR SEVENTH, PERFECT FIFTH, AND MAJOR THIRD
ON THE TONIC AND SUBDOMINANT OF MAJOR KEYS, TO THOSE
OF THE CHORD TO WHICH IT PROGRESSES.*Rules.*

4. The major seventh can progress to its nearest grave diatonic or be retained; if the other sounds of the chord are

* *Vide* Table of Chords of the "Seventh," page 105.

retained, it can progress to its nearest acute diatonic, forming an eighth to the grave sound, thus :



ON THE PROGRESSION OF THE CHORD OF THE MAJOR SEVENTH, PERFECT FIFTH, AND MAJOR THIRD ON THE TONIC AND SUBDOMINANT OF MAJOR KEYS, TO ANOTHER CHORD IN THE SAME KEY.

THEOREM I.

The chord of the major seventh, perfect fifth, and major third on the tonic and subdominant of major keys has similar progressions to the chord of the dominant seventh.*

Exception 1. When the chord of the major seventh, perfect fifth, and major third on the subdominant progresses to a chord of suspension on the leading note, and the leading note progresses to the tonic, that chord of suspension should not contain a suspension of the eighth.

Exception 2. The chord of the major seventh, perfect fifth, and major third on the subdominant should not progress to the chord of $\frac{5}{4}$ on the leading note when the leading note progresses to the tonic.

Exception 3. The chord of the major seventh, perfect fifth, and major third on the tonic and subdominant should not progress on the fourth above to $\frac{8}{4}$ as a suspension, or to the suspensions of $\frac{8}{4}$ on the fourth above.

THEOREM II.

The chord of the major seventh, perfect fifth, and major third on the tonic and subdominant can also progress to a triad on the same grave sound, thus :



* *Vide* Progressions of the Dominant Seventh, Chapter xxxiv, page 109.

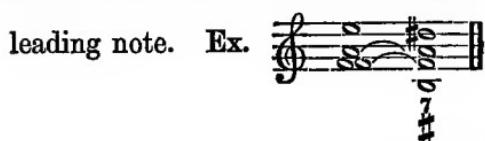
THEOREM III.

The chord of the major seventh, perfect fifth, and major third on the tonic and subdominant can also progress to the diatonic chord of the "seventh" on the diatonic fourth above, or fifth below, provided the interval of the seventh is properly prepared.



THEOREM IV.

The chord of the major seventh, perfect fifth, and major third on the subdominant can progress to the chord of the minor seventh, diminished fifth, and major third on the leading note. Ex.



EXAMPLES OF PROGRESSIONS TO TRIADS.

Remark 1. In the progression of the chord of the major seventh on the tonic to a triad on the fourth above in the position shown, it is better to make G descend to F, than to rise to A, as A is the resolution of B, the seventh; and it is best to avoid doubling the resolution of a discord, i. e. combining the sound which is the resolution of the discord with its unison or octave.

Remark 2. When the chord of the major seventh on the

* When the leading note is combined with its octave, it cannot progress to the tonic, or any of its inversions or suspensions. *Vide* the Progressions of this chord, Part II, page 69.

subdominant progresses to a triad on the fourth above, the interval of the seventh is best used as an acute sound.

EXAMPLES OF PROGRESSIONS TO THE CHORDS OF THE SIXTH.

Remark. In Examples 1 and 2 it is better to double the resolution of the seventh, in preference to the grave sound in the chord of the sixth.

PROGRESSIONS TO CHORDS OF THE $\frac{6}{4}$.

PROGRESSIONS TO THE SUSPENSIONS OF TRIADS ON THE FOURTH ABOVE.

Remark. There is no example given of the progression of the chord of the major seventh on the subdominant to either $\frac{5}{4}$, $\frac{9}{8}$, or $\frac{7}{4}$ on the leading note. *Vide Exceptions 1, 2, and 3, to Theorem I.*

PROGRESSIONS TO THE SUSPENSIONS OF A TRIAD ON THE NOTE ABOVE.

To §.

To 6.

To 6.

To 6.

PROGRESSIONS TO SUSPENSIONS OF CHORDS OF THE SIXTH
ON THE FOURTH ABOVE, OR FIFTH BELOW.

To 5.

To 5.

To 4.

To 4.

To 4.

There is no example given of the progression of the chord of the major seventh on the subdominant to $\frac{9}{3}$, or $\frac{9}{3}$, or $\frac{9}{4}$ on the leading note. *Vide Exception 2, Theorem I.*

There is no example given of the progression of the chord of the major seventh on the tonic and subdominant to the suspension $\frac{6}{4}$ of $\frac{5}{3}$ on the fourth above. *Vide Exception 3, Theorem I.*

PROGRESSIONS TO THE SUSPENSIONS OF CHORDS OF THE SIXTH ON THE NOTE ABOVE.

The image contains three musical staves, each with a bass staff at the bottom and a treble staff above it. The first progression, labeled "To $\frac{5}{4}$ ", shows a sequence of chords: 7, 9, 8, 7, 9, 8. The second progression, labeled "To $\frac{6}{4}$ ", shows a sequence of chords: 7, 6, 3, 7, 6, 3. The third progression, labeled "To $\frac{7}{4}$ ", shows a sequence of chords: 7, 9, 6, 4, 7, 9, 6, 4. Each staff has a bracket above it indicating the progression's destination.

PROGRESSIONS TO THE SUSPENSIONS OF $\frac{6}{4}$ ON THE SAME GRAVE SOUND.

The image contains two musical staves. The first staff, labeled "To $\frac{7}{4}$ ", shows a sequence of chords: 7, 4, 6, 7, 4, 6. The second staff, labeled "To $\frac{6}{4}$ ", shows a sequence of chords: 7, 5, 6, 7, 5, 6. Both staves have a bracket above them indicating the progression's destination.

PROGRESSIONS TO THE SUSPENSIONS OF $\frac{6}{4}$ ON A NOTE ABOVE.

The image shows a single musical staff with a bass staff at the bottom and a treble staff above it. It depicts a progression to a suspension of $\frac{6}{4}$ on a note above. The sequence of chords shown is 7, 9, 8, 7, 9, 8. A bracket above the staff indicates the destination chord.

There is no example given of the progression of the chord of the major seventh on the tonic and subdominant to $\frac{7}{4}$, $\frac{5}{4}$, or $\frac{9}{4}$ on the fourth above. *Vide Exception 1 to Theorem I.*

ON THE CHORDS WHICH CAN PRECEDE THE CHORD OF THE MAJOR SEVENTH, PERFECT FIFTH, AND MAJOR THIRD ON THE TONIC AND SUBDOMINANT OF MAJOR KEYS.

Rules.

1. The chord of the major seventh, perfect fifth, and major third is best preceded by some chord which permits its seventh to be prepared; but when the seventh is not prepared, it can be preceded,

1st. By a diatonic triad on any sound of the key, and by an augmented triad on the sound a perfect fifth above or perfect fourth below.

2nd. By a diatonic chord of the sixth on any sound of the key, and by the chord of the minor sixth and chromatic major third on the sound a minor second below.

2. The chord of the major seventh on the tonic can be preceded,

1st. By the chord the first inversion of the double diminished triad.

2nd. By the chord of $\frac{6}{4}$ on the dominant, Ex. 1; leading note, Ex. 2; tonic, Ex. 3; supertonic, Ex. 4, and subdominant.

Ex. 1.

Ex. 2.

Ex. 3.

Ex. 4.

The musical examples consist of four staves of music. Each staff begins with a bass clef and a common time signature.
 - Ex. 1: Shows a bass line with notes on the 6th and 7th lines, followed by a treble line with notes on the 5th and 6th lines. Measures are separated by vertical bar lines.
 - Ex. 2: Shows a bass line with notes on the 5th and 6th lines, followed by a treble line with notes on the 4th and 5th lines. Measures are separated by vertical bar lines.
 - Ex. 3: Shows a bass line with notes on the 6th and 7th lines, followed by a treble line with notes on the 5th and 6th lines. Measures are separated by vertical bar lines.
 - Ex. 4: Shows a bass line with notes on the 6th and 7th lines, followed by a treble line with notes on the 5th and 6th lines. Measures are separated by vertical bar lines.

3rd. By the following suspensions of a triad on the same grave sound, viz. $\frac{5}{4}$, $\frac{9}{4}$, $\frac{9}{4}$.

A single staff of music in common time with a bass clef. It shows a bass line with notes on the 5th and 6th lines, followed by a treble line with notes on the 4th and 5th lines. Measures are separated by vertical bar lines.

3. The chord of the major seventh on the subdominant can be preceded,

1st. By the chord of $\frac{4}{3}$ on the dominant, Ex. 1; super-dominant, Ex. 2; tonic, Ex. 3; mediant and subdominant; and by the following suspensions of a triad on the same grave sound, viz. $\frac{5}{4}$, $\frac{3}{2}$, $\frac{2}{1}$.

Ex. 1. Ex. 2. Ex. 3. Ex. 4. Ex. 5. Ex. 6.

4. The chord of the major seventh on the tonic and subdominant can also be preceded by a chord of the seventh on the fourth above, or fifth below, provided the seventh is prepared; and by a diatonic chord of the seventh on the third below or sixth above. Ex.

Corollary. The following sequence can be formed with the various chords of the seventh.

The chord of the seventh on the tonic can be preceded by the chord of the minor seventh, augmented fifth, and major third on the dominant. Ex.

CHAPTER XLI.

DIVISION XII.

ON THE CHORD OF THE MAJOR SEVENTH, AUGMENTED FIFTH,
AND MAJOR THIRD IN MAJOR KEYS.*

THEOREM.

The chord of the major seventh, augmented fifth, and major third is formed by adding the interval of the diatonic major seventh to the augmented triad on the tonic and subdominant of major keys.

EXERCISE.

Write triads, etc. in any major key, introducing some of the other chords previously described, and the chord of the major seventh, augmented fifth, and major third on the tonic and subdominant.

Rules.

1. The grave sound can sometimes be combined with its octave. When the major seventh rises, the octave to the grave sound must not appear as an acuter sound than the major seventh.
2. The major third can be combined with its octave if required, as in the dominant seventh. *Vide* Chapter XXXIV.
3. The augmented fifth should not be combined with its octave.
4. The major seventh is best used by preparation; but it can be used without. It cannot be combined with its octave.

ON THE PROGRESSION OF THE SOUNDS OF THE CHORD OF THE MAJOR SEVENTH, AUGMENTED FIFTH, AND MAJOR THIRD, TO THOSE OF THE CHORD TO WHICH IT PROGRESSES.

Rules.

1. The third has similar progressions to the third of the dominant seventh. *Vide* Chapter XXXIV.

* *Vide* Table of Chords of the "Seventh," page 105.

2. The chromatic augmented fifth, unless previously prepared, must proceed from its nearest diatonic, and progress to its nearest acute diatonic.

3. The major seventh must progress either to its nearest acute or grave diatonic.*

ON THE PROGRESSION OF THE CHORD OF THE MAJOR SEVENTH,
AUGMENTED FIFTH, AND MAJOR THIRD ON THE TONIC AND
SUBDOMINANT OF MAJOR KEYS, TO ANOTHER CHORD
IN THE SAME KEY.

PROGRESSIONS TO A TRIAD.

Rules.

1. The chord of the major seventh, augmented fifth, and major third on the tonic and subdominant can progress to a triad on the fourth above, or fifth below, Exs. 1 and 2.

Remark. The progression of this chord of the seventh on the subdominant to a triad on the leading note is seldom agreeable; but in certain progressions it can be used without any ill effect; for example, in the sequence shown in Ex. 3.

Ex. 1.

Ex. 2.

Ex. 3.

PROGRESSION TO CHORDS OF THE SIXTH.

2. The chord of the major seventh, augmented fifth, and major third on the tonic and subdominant can progress to a chord of the sixth on the fourth above, or fifth below, Exs. 4 and 5; and to a chord of the sixth on the same grave sound, Exs. 7 and 8.

Remark. The progression shown in Ex. 5 is best introduced in a sequence, as in Ex. 6.

* When the chord of the major seventh, augmented fifth, and major third progresses to another chord on the same grave sound, the major seventh can rise (*vide* Exs. 9 and 10); but generally it is more convenient to make it fall, *vide* Exs. 1, 2, 3, etc.

Ex. 4. Ex. 5.

Ex. 4. and Ex. 5. show two different harmonic progressions. Both start with a major triad (G-B-D) followed by a chord of the major seventh (G-B-D-F#). In Ex. 4, the progression continues to a chord of the augmented fifth (G-B-D-E) and then to a chord of the major third (G-B-D-G). In Ex. 5, it continues to a chord of the major seventh (G-B-D-F#) and then to a chord of the augmented fifth (G-B-D-E).

Ex. 6.

Ex. 7. Ex. 8.

Ex. 6. shows a progression from a major triad (G-B-D) to a chord of the major seventh (G-B-D-F#), then to a chord of the augmented fifth (G-B-D-E), and finally to a chord of the major third (G-B-D-G). Ex. 7. shows a progression from a major triad (G-B-D) to a chord of the major seventh (G-B-D-F#), then to a chord of the augmented fifth (G-B-D-E), and finally to a chord of the major third (G-B-D-G). Ex. 8. shows a progression from a major triad (G-B-D) to a chord of the major seventh (G-B-D-F#), then to a chord of the augmented fifth (G-B-D-E), and finally to a chord of the major third (G-B-D-G).

3. The chord of the major seventh, augmented fifth, and major third can progress to the chord of $\frac{6}{4}$ on the same grave sound.

Ex. 9.

Ex. 10.

Ex. 9. shows a progression from a major triad (G-B-D) to a chord of the major seventh (G-B-D-F#), then to a chord of the augmented fifth (G-B-D-E), and finally to a chord of the major third (G-B-D-G). Ex. 10. shows a progression from a major triad (G-B-D) to a chord of the major seventh (G-B-D-F#), then to a chord of the augmented fifth (G-B-D-E), and finally to a chord of the major third (G-B-D-G).

4. The chord of the major seventh, augmented fifth, and major third can progress to the diatonic chord of the "seventh" on the fourth above, or fifth below, by preparing the interval of a seventh.

Ex. 11.

Ex. 12.

Ex. 11. shows a progression from a major triad (G-B-D) to a chord of the major seventh (G-B-D-F#), then to a chord of the augmented fifth (G-B-D-E), and finally to a chord of the major third (G-B-D-G). Ex. 12. shows a progression from a major triad (G-B-D) to a chord of the major seventh (G-B-D-F#), then to a chord of the augmented fifth (G-B-D-E), and finally to a chord of the major third (G-B-D-G).

5. The chord of the major seventh, augmented fifth, and major third can progress to the following suspension of the chord of the sixth on the fourth above, or fifth below, viz. to $\frac{3}{2}$, Ex. 13.

Ex. 13.

Ex. 13. shows a progression from a major triad (G-B-D) to a chord of the major seventh (G-B-D-F#), then to a chord of the augmented fifth (G-B-D-E), and finally to a chord of the major third (G-B-D-G).

ON THE CHORDS WHICH CAN PRECEDE THE CHORD OF THE MAJOR SEVENTH, AUGMENTED FIFTH, AND MAJOR THIRD ON THE TONIC AND SUBDOMINANT OF MAJOR KEYS.

THEOREM I.

The chord of the major seventh, augmented fifth, and major third can be preceded by any triad which prepares the

sound at the interval of a major seventh, and contains a sound from which that at an interval of an augmented fifth can proceed; i. e. it can be preceded by a triad on the diatonic fifth above, or fourth below, and by a triad on the diatonic third above, or sixth below; Exs. 1, 2, 3, and 4.

Ex. 1.

Ex. 2.

Ex. 3.

Ex. 4.

The musical examples consist of four staves of music in common time with a treble clef. Each staff has a basso continuo staff below it with Roman numerals indicating harmonic changes. Above each staff is a bracketed label indicating the harmonic context:

- Ex. 1:** On the fourth below, or fifth above. The progression is shown as a triad on the 5th (V) followed by a dominant 7th chord (V7).
- Ex. 2:** On the same grave sound. The progression is shown as a triad on the 4th (IV) followed by a dominant 7th chord (V7).
- Ex. 3:** On the third above. The progression is shown as a triad on the 3rd (III) followed by a dominant 7th chord (V7).
- Ex. 4:** On the same grave sound. The progression is shown as a triad on the 6th (VI) followed by a dominant 7th chord (V7).

THEOREM II.

When the major seventh is not prepared, the chord of the major seventh, augmented fifth, and major third can be preceded (in addition to the chords above mentioned) by a diatonic triad on the same grave sound, Ex. 5; on the fourth above, or fifth below, Ex. 6; on the sixth above, or third below, Ex. 7; also by a diatonic chord of the sixth on the same grave sound, Ex. 8; on the third above, or sixth below, Ex. 9; on the fifth above and minor second below; and by a diatonic chord of $\frac{6}{4}$ on the same grave sound, Ex. 10; on the second above, and on the third above.

Ex. 5.

Ex. 6.

The musical examples consist of two staves of music in common time with a treble clef. Each staff has a basso continuo staff below it with Roman numerals indicating harmonic changes. Above each staff is a bracketed label indicating the harmonic context:

- Ex. 5:** On the same grave sound. The progression is shown as a triad on the 5th (V) followed by a dominant 7th chord (V7).
- Ex. 6:** On the fourth above. The progression is shown as a triad on the 4th (IV) followed by a dominant 7th chord (V7).

Ex. 7.

Ex. 8.

The musical examples consist of two staves of music in common time with a treble clef. Each staff has a basso continuo staff below it with Roman numerals indicating harmonic changes. Above each staff is a bracketed label indicating the harmonic context:

- Ex. 7:** On the third below. The progression is shown as a triad on the 3rd (III) followed by a dominant 7th chord (V7).
- Ex. 8:** On the same grave sound. The progression is shown as a triad on the 6th (VI) followed by a dominant 7th chord (V7).

Ex. 9.

On the third above.

Ex. 10.

On the same grave sound.

Ex. 11.

On the third above.

Ex. 12.

On the same grave sound.

THEOREM III.

The chord of the major seventh, augmented fifth, and major third can be preceded by an augmented triad on the same grave sound; by the chord of the minor sixth and chromatic major third on the third above; and by the chord of the major seventh, perfect fifth, and major third on the same grave sound.

Remark. This last is the best combination to precede the chord of the major seventh and augmented fifth; Ex. 12.

THEOREM IV.

The chord of the major seventh, augmented fifth, and major third can be preceded by the following suspension of a triad, viz. $\frac{5}{4}$ on the same grave sound, Ex. 13; and on the third above, Ex. 14.

Ex. 13.

On the same grave sound.

$\frac{5}{4} \frac{3}{2} \frac{3}{2} 6 \quad \frac{5}{4} \frac{3}{2} 7 \quad \frac{5}{4} \frac{3}{2} \frac{3}{2} 6$

Ex. 14.

On the third above.

$\frac{5}{4} \frac{3}{2} \frac{3}{2} 6 \quad \frac{5}{4} \frac{3}{2} 7 \quad \frac{5}{4} \frac{3}{2} \frac{3}{2} 6$

Remark. The chord of $\frac{5}{4}$ cannot be used without preparing the fourth; the preparation is omitted in the above examples for the sake of brevity.

